# THE CULTIVATOR.

THIRD — To Improve the Soil and the Mind. — SERIES.

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## Draining—Results of Experience.

A meeting of the principal English agriculturists, who have distinguished themselves in improved farming, was held in London during the past winter, which was confined in its discussions wholly to the subject of underdraining, and, as might have been expected, a great deal of valuable information was elicited.* The experience of British farmers with draining has been great; and the conclusions they have arrived at on some disputed points, cannot fail to prove interesting. But we find the same defect in their statements, that characterize nearly all the details of experiments made in this country; namely, a want of accurate estimates or measured results. Their conclusions are given generally, without any data by which we know the amount or degree of benefit or injury occasioned. "*I think so*," or "*I know so*," is not a very scientific rationale, nor very clear mathematical calculation.

### DEPTH OF DRAINING.

An important point, on which nearly every one present agreed, was that deep drainage,—not less than four feet,—was invariably the best. Among other statements on this part of the subject, we observe that of T. SCOTT, who had had for fifteen years constant connexion with extensive works for drainage. In 1838, he superintended 140 miles, which were dug 27 to 30 inches deep. The bottom was laid with sole tile, or with 12 inches of stone broken so as to pass through a 2½ inch ring. "The effect of the drainage was wonderful, and repaying at the time;" but, as proved to be the case with many other shallow drains, these seemed to lose in part their efficiency after several years; but having learned the superior advantages of deep drainage, measures were taken ten years afterwards to take these all up and replace them with four feet drains. The objection that surface water would not find its way down to such a deep channel, had not been found to exist in practice, which indeed appears very obvious when it is remembered that water will descend through soil four feet much easier than horizontally 12 or 15 feet, which it must do to effect thorough drainage of the land.

Deep drains were found to commence running sooner than shallow ones, and to continue running longer—showing their greater efficiency; doubtless owing to the fact that the subsoil must be first filled by the falling rain, up to the bottom of the shallow ditch, before the flow of water can begin; and it must again cease when the surplus water in the subsoil is reduced down to this level.

Only one member of the meeting advocated as shallow a drainage as three feet—which he did on the ground of saving expense, the last foot of a four-feet ditch often costing as much to excavate as the three previous feet.

It was claimed by some members, that soluble manure would be carried down and flow off in shallow drains, while the water will run clear from those of greater depth. This reasoning does not appear to possess much weight, for if the channels are two rods apart, all the surplus water of the soil would be only *one-sixteenth* nearer to the three-feet drain than to the four feet—a difference of small amount, and affecting very little the results in practice.

It would have greatly assisted our enterprising farmers in America in determining the proper depth, if we had been furnished in this report with precise statements of the actual difference in results,—given in figures from careful measurements,—showing the increased cost per acre of the various increased depths, together with the greater amount of growth in crops. As the statements now stand, there is nothing more than a mere expression of *opinion*, founded on extensive observation. A five-feet ditch may be best; but what we want to know is, whether its increased cost will *pay*.

### IMPORTANCE OF LEVELLING-INSTRUMENTS.

Where there is a steep descent, little difficulty is commonly felt; yet a *uniform* descent would admit of smaller tile, and prevent those lodging places for sediment, which has been sometimes found to cause the entire obstruction of the channel. Where the land is nearly level, an instrument for determining the descent, in the first place; and for its uniform slope in the second, is absolutely indispensable. Col. CHALLONER mentions instances where, without this careful attention to the fall, three-fourths of its entire amount

* Reported in the *Mark Lane Express* (London,) in 26 closely printed, large columns.

had been taken up before the drain had been cut half its length, thus leaving the remainder almost a dead level and nearly useless. He recommended an accurately-made common bricklayer's level, whose length divided into the entire length of the drain, would give the descent for each length, and perfect uniformity be thus maintained in every part.

COST OF DRAINING.

It appears from the various remarks made by the speakers, that *brush-draining*, had been regularly and efficiently performed for 30 to 40 shillings per acre, or eight or ten dollars of our money. These continued to answer the purpose for twelve or fourteen years. The drains appear to have been made much shallower than the four or five feet tile drains, which have cost about five to seven pounds or twenty-five to thirty-five dollars per acre, and which is about the same as the cost of draining in this country only two and a half or three feet deep. The difference in cost, in the two countries, is atrributable to the difference in the price of labor and cost of tile. We entertain hopes, however, that by the use of Pratt's ditching machine, we may be able to drain land three feet deep, and lay it with tile, for $20 per acre, of which the tile will be one-half. The price of tile now, is much higher than in England, but it will unquestionably become cheaper when there are greater facilities for its manufacture, but more especially a larger market for it than at present.

DURABILITY OF DRAINS.

The opinion was expressed that deep, well made drains, would last at least fifty years. If they would last fifty, we cannot see why they would not last a hundred and fifty. The only thing in the way of their continued durability appears to be sediment accumulating in the tile and choking it, or the settling of the earth about their exterior and filtering into their crevices, and thus shutting up the access to them from without. In clay soils, there appears to be little liability to internal choking. In those of a sandy and gravelly nature, the danger is greater, and is to be prevented, (in addition to the uniformity of descent already mentioned,) by using collars at the junction of the pipes, by surrounding the pipes with gravel or broken stone, to be covered with flat stone, hard-wood slabs, or brush, or using brush alone in contact with the tile. In quick-sand, all these remedies may need to be combined. The same remedies will of course prevent external clogging. This difficulty was found to be much greater in shallow than in deep drains. Fifteen years ago, two feet was regarded as deep, many drains being less, but they soon lost their efficiency.

ADVANTAGEOUS RESULTS.

G. DONALDSON mentioned a piece of land in Clydesdale, drained in 1821—2. The land was previously so wet and boggy that it was unfit for cultivation. It was drained from three to five feet deep, and the third year afterwards it produced a crop of wheat of six quarters (48 bushels,) to the acre, and 64 lbs. weight per Winchester bushel, and had ever since been in profitable cultivation. Another instance,—300 acres in Lancashire,—never before cultivated, producing only coarse grass and heath; after thorough underdraining, was plowed and produced a crop of oats which sold at public auction for 9 pounds (45 dollars,) per acre, and the land was let for the next year for £11 ($55) per acre. In another instance, mentioned in a letter from W. HULTON, of Lincolnshire, land which "four horses had found a difficulty in plowing, is now producing excellent crops of wheat, worth almost the fee-simple of the land in an improved state." In another case, mentioned by J. B. DENTON, the Speaker of the House of Commons (his name not given,) had several farms to drain, occupied by tenants much prejudiced against deep draining. A single farm was therefore drained four feet deep. "When this was done, the tenants one and all, begged that their *wet* lands might be drained—they selecting the *wetest* portions. On the completion of this second job, the same tenants, with greater earnestness, begged now to have the same lands drained that they had withheld as *dry*,—because they found by comparison with the drained land, that the excepted dry land was *insufferably wet*."

The following calculation shows the great importance of deep draining, and after it, of deep tillage,—viz. that every *inch* of additional depth of drainage, drains and render porous for cultivation and the penetration of the roots of crops, *one hundred tons* of soil per acre. The following interesting and striking facts show

THE DEPTH THAT ROOTS WILL PENETRATE.

J. B. DENTON (who is high authority) says, "I have evidence now before me that the roots of the wheat plant, the mangold wurzel, the cabbage, and the white turnip, frequently descend into the soil to a depth of three feet. I have myself traced the roots of wheat nine feet deep. I have discovered the roots of perennial grasses in drains four feet deep; and I may refer to Mr. Mercer, of Newton, in Lancashire, who has traced the roots of rye-grass running for many feet along a small pipe-drain, after descending four feet through the soil. Mr. Hetley, of Orton, assures me that he discovered the roots of mangolds in a recently made drain five feet deep; and the late Sir John Conroy had many newly made drains four feet deep stopped by the roots of the same plant."

THE DISTANCE OF THE DRAINS ASUNDER.

Most of the speakers thought that this distance should not be less than 30 feet, and on the whole recommended 25 to 30 feet. Some of them seemed to think there was a definite and distinct distance to be observed, for the remark was made that "a single yard too near may be a pound per acre thrown away, while a yard too wide may occasion dissatisfaction for ever." We cannot see how so distinct a line can be drawn. The soil nearest the drain is of course made dry first, and then that more remote, in gradual succession; and the greater the distance the longer the land would require to become properly drained. There is a certain medium, pointed out by observation and expediency, which a view to economy may make a greater distance, where labor is costly and land and crops cheap, than otherwise; although the saving of labor in tillage by underdraining, should not be forgotten in the estimate. The quantity of rain that falls, and which rains in different places, may have an important influence on the number of drains to carry it off speedily.

THE KEYTHORPE SYSTEM.

This is a system of drainage, extensively practiced by Lord BERNERS (who had previously expended several thousand pounds in shallow drainage, in the common or *gridiron* arrangement of the drains.) In the Keythorpe system, the arrangement of the drains is entirely irregular, and dependant solely on the natural seams and strata in the soil—and is of course only applicable to such soils as have these seams and strata—and which are perhaps more common than many suppose. In some places, a single drain, properly located, will affect complete drainage of a large piece f land; in others, numerous parallel or branching drains may be requisite. To ascertain this very important point, *trial holes* are dug at regular intervals all over the piece of land to be operated on; the rapidity with which they fill, and the quantity they contain, will afford a guide for the commencement of operations. A ditch is cut in such places as appear best; and then its effects are observed on the trial holes. Those which are soon laid dry by this means, show that no more drains are needed there, even if at some distance. While those that continue filled with water indicate that further drains are required, the position of which must be governed by observation and circumstances.

The chief recommendation of this system is its *cheap-*

*ness.* The drains being cut only where they are actually wanted for use, a great saving of labor is effected, the cost by this mode sometimes being not more than one half that of the regular or gridiron system. Several gentlemen who had visited Lord Berners' lands after a long and heavy rain, affirmed that the drainage was effected by this system in the most complete and thorough manner.

We have no doubt that in many portions of the country, the adoption of the plan of digging trial holes *at regular distances* over the whole field to be drained, would afford much valuable knowledge on the requirements of the land, and on the position of drains; and that on much land now supposed to be quite dry and to need no labor of the kind, the water would be found to stand a long time in the holes, showing the amount of stagnant water in the subsoil.

POSITION OF DRAINS.

The general voice of the members of this meeting was in favor of running drains down hill by the shortest or steepest course. If the drain descends *obliquely*, and if water will leach into it from above, it may also leach out again on the lower side; but once in the directly descending drain, it cannot flow out again, but takes the shortest cut down the hill, in the bottom of the ditch. In the Keythorpe system, however, exceptions are made to this rule, wherever the nature of the stratified earth seems to demand it.

## Should Ashes be Mixed with Superphosphate of Lime?

In the COUNTRY GENTLEMAN of Feb. 7, we stated that *unleached wood ashes* should not be mixed with superphosphate of Lime. A correspondent of the *Maine Farmer*, cites a process for manufacturing superphosphate of lime given by Mr. Alexander J. Main, in the *Transactions of the Highland and Agricultural Society of Scotland*, in which he recommends "house ashes" for mixing with the superphosphate of lime; and as this is in his opinion diametrically opposed to our statement, he asks "Who is right?"

Our inquiring friend might have cited even higher authority for the use of ashes with superphosphate than Mr. MAIN. The lamented Prof. JOHN P. NORTON, Prof. EMMONS, and many other American writers recommend farmers manufacturing superphosphate of lime from bones, to dry the mixture by the addition of ashes.

These writers evidently recommended the practice of British farmers without due consideration. It is true that in England "house ashes" are mixed with home-made superphosphate of lime in order to render it dry enough to be sown with the drill—and the practice is a good one. But "house ashes" are a very different article from the "unleached wood ashes" referred to by us. The "house ashes" of the English, are *coal ashes*, and have no injurious action when mixed with guano, superphosphate, &c. Unleached wood ashes have a strong alkaline reaction, and will, as we before stated, *most unquestionably* "set free the ammonia from its acid combinations," in these and all other manures. Any one can readily satisfy himself on this point by mixing a little Peruvian guano with unleached wood ashes and adding a little water. He will soon produce a strong smell of ammonia (hartshorn) and this simple experiment will do more to convince him of the truth of our assertion than the most elaborate argument. We hope the correspondent of the *Maine Farmer* will satisfy himself on this point.

That "unleached wood ashes" when mixed with superphosphate of lime has an injurious effect cannot for one moment be doubted by any one having any knowledge of chemical action. The object of mixing sulphuric acid with bones, or as it is erroneously called "dissolving" bones with sulphuric acid, is to convert the insoluble phosphate of lime as it exists in bones into the soluble superphosphate of lime. The sulphuric acid accomplishes this by taking away a portion of the lime, leaving an excess of phosphoric acid. Superphosphate of lime is phosphate of lime and phosphoric acid. The former alone is insoluble, but the two combined are quite soluble and readily available for the use of plants. Now then, suppose we add "unleached wood ashes" to a mixture of phosphate of lime and phosphoric acid—in other words to superphosphate of lime—what is the effect? The potash and soda of the ashes unite with the excess of phosphoric acid, and leave the phosphate of lime in its insoluble condition. And thus we undo what has been done at considerable expense. If we add lime the same effect is produced with this difference that the *whole* of the phosphoric acid in the mixture combines with lime—the original insoluble phosphate of lime being formed. So that lime is even worse than unleached wood ashes, but neither should ever be mixed with superphosphate of lime.

With commercial superphosphate of lime, or with superphosphate of lime made from animal charcoal, burnt bones, apatite, &c., there is no necessity for mixing anything at all. Drill it in with the seed just as it is. Superphosphate of lime made from fresh bones, is, necessarily, so moist that some absorbent material must be mixed with it before it can be sown with a drill; and it is for this reason that British farmers mix coal ashes with it. Any dry material, that has not an alkaline reaction, such as charcoal dust, dried peat, burnt clay, &c., may be used. Burnt clay is, perhaps, more extensively used in many parts of England for this purpose than any other substance. J. H.

## To make Hens Lay in Winter.

MESSRS. EDITORS—As we are social beings, let us talk about poultry a few moments.

Now to my caption. First make a house, 8 by 10 feet—a 16 light window on the south side—a double door on the west—ventilator, eight inches square, in the top—let it run up 2½ feet above the ridge board. Line the inside of the room with boards, leaving a space of four inches—fill the space with saw dust or tanbark. Let the room be 6 feet between joints. Lath, plaster and whitewash it. Bank it up on the outside with horse manure 5 feet high Now you have a room that will not freeze. This room is sufficiently large for 25 hens and 1 cock. Place in the corner, a box 6 feet long, 1 foot square, with 5 partitions for nests. Place the box on the end; let the front be open, except a 4 inch protection to each nest. Let the roosts be in shape of a ladder. Your house is finished.

Keep 2 inches of sand upon the floor, with a box of ashes—another with slacked lime, one with gravel, and one with old lime mortar. Feed every variety that nature requires—corn, oats, buckwheat, screenings, boiled potatoes, cabbage, Indian meal ground with the cob, apples, cut hay, warm puddings, a little sulphur mixed with it. Keep fresh water or milk constantly *come-atable*—also plenty of feed. Feed fresh meat three times a week—of this fail not at your peril. In a warm day raise your slide and let them roam. Cold days, let them stay in. Follow these directions and hens will lay in winter as well as summer.

I have 15 early pullets kept as per directions. The 14th of December I found the first egg, and the 1st of March we have sold 36 dozen for eight dollars and 20 cents, and they still continue laying. Hens kept in this way will lay equally as well in the summer as if they were idle in the winter, but two or three years will use up any hen—therefore sell the old and keep the young.

I once kept from 300 to 500 hens for years, and if rightly managed they are profitable—if not, vice versa. STORRS BARROWS. *South Trenton, Oneida Co., N. Y*

## Culture of the Mangold Wurzel.

EDITORS OF THE COUNTRY GENTLEMAN—I notice in your paper of the 3d inst., an inquiry on the best method of raising Mangold Wurzel. I give you my system of growing them, which I have practiced both here and in England. I have grown them every year for stock, as I consider them better for that purpose than either carrots or ruta bagas, and as they are a crop you can always count on, as they are not subject to disease nor the attacks of insects, and keep later in the spring than Swedes. They can be grown in this country with as good success as in England if the same attention is paid them here as there, which I have no doubt will be done when their proper value is known by our farmers, for their stock, horn cattle, sheep and hogs.

To insure a good crop, get your ground into good tilth by first plowing and subsoiling. Then cart out your manure, barn-yard or a good compost heap. It must be well rotted, what we call spit manure, that is, manure you can dig with a spade. As to quantity, dump it cart thick, that is the length of your horse and cart from heap to heap. If you have applied this quantity of manure to any of your last year's crops, use that ground this year for mangolds, as it does not like fresh manure so well. When your manure is plowed in, give it a good harrowing. Then roll the ground. Then take coarse salt and give your ground a sowing of that, throwing it on as thick as you sow oats. Harrow and roll again. If your ground is not fine by that, repeat your harrowing and rolling. Get your ground in good condition, and you are sure of a crop. If your ground was manured last year with barn-yard manure, use this year two hundred weight of no. 1 guano, or three hundred of superphosphate of lime; mix either with four or five times its bulk of dry mould—apply it broadcast and harrow it in. Pounded bones (fine) will be a good addition to the above.

I would recommend to beginners to use superphosphate of lime as by it there is no danger of destroying your crop. With guano there is danger in inexperienced hands. Try a row or two with guano, and learn to use it by experience. Guano is our best special manure, but unfortunately it has got a bad name through people not using it with proper care. They then blame the guano instead of blaming their own want of judgment in applying it.

Ground that has been worked three or four years, is best for mangolds. They will not do as they should do on a sod. You can raise to advantage three crops of mangolds on the same ground. A level piece of ground is best. They will not do on a hill. Time of sowing from 1st to middle of May. Prepare your seed by soaking in warm water that you can bear your hand in, forty-eight hours. Then let it remain in your last cooling of water 48 hours longer or more. Then dry it in wood ashes, plaster or any thing that will dry it. Then sift it through a fine sieve to let the ashes off. Don't be afraid of soaking too long. I have let it remain after soaking until it began to sprout. The seed is so hard that if not soaked previous to sowing, it lays a long time in the ground before it germinates, and the weeds get the start of you, which, to grow mangold well, must not be allowed. Keep your ground clean and your crop will pay you. As to the manner of sowing your seed, that depends on circumstances. If you can get boys, they are the cheapest. Have a line the length or half the length of your ground, and a measure the width you intend to have your rows. Set the line tight; then shove one foot along the line which makes a good mark; then your boys follow and set the seed one-fourth or half an inch deep, twelve inches apart and two seeds in each hole. They can use their fingers or a small dibber; or set the seed six inches apart and one seed in each hole. After they are up thin to twelve inches apart. The distance apart of your rows depends on how you intend to cultivate them. If by the hand-hoe eighteen inches apart; if by the cultivator (horse) 2½ or three feet apart.

Another way you can mark out your rows: take a narrow piece of board and put a handle to it like a rake; put pegs in it the distance you intend your rows to be apart; set you line for one row and draw by it; then in your outside row set your last tooth and draw to the bottom, and so on all through. You can also sow your seed with a sowing machine. Regulate your plates and quantity of seed on a floor or level piece of ground. You cannot sow so regularly by it as with the hands, neither do I think there is any economy in it when you can get boys. You use treble the amount of seed, and when the plants are up it takes much longer time to thin them than it does when planted by hand, and they are not so regular in coming. Two pounds of seed will sow an acre by hand, whereas by machine it requires six pounds.

If you have any vacancies you can transplant from where they are thick, and they will do as well as the others not transplanted. You must get the whole of the root in length; if the point breaks off in lifting it, throw it away; it won't make a root. In lifting, use a dibber; shove it down half an inch from the plant, then pull to you gently, then take hold of your plant and pull gently, and you get your plant fit for planting. I have sowed mangold in a bed and then transplanted like cabbage.

When I use a machine I drill in guano or superphosphate of lime with the seed.

In cleaning them, keep the mould from them; if you have any hill let it be in the center of your row.

The sorts I always grow, are the Long Red and Orange Globe. The latter keeps longer and does better on some ground than the Long Red.

I commence to store them the latter end of Oct. or 1st. Nov.—as the weather favors. I let them stop out as long as I can. I commence a few days before I intend to pull the roots, to strip the leaves off, and feed them to the cattle, so that the cattle use up all the leaves. Just notice your cattle's eyes when they get a taste of them, and you will see how they like them—also notice your milk-pail and milking before you use them, and see the difference there will be in the quantity of your milk, and when they are all eat I think you will say, I wish I had more of those leaves. Set a man to pulling your roots, and a cart or wagon along; as they pull them, throw into the cart. Take them close to your cow house and pit them. Lay them four feet wide, with the outside row bottom to top with top out, roots in. Build 4 feet high, tapering so that you finish with two at the top. Then lay a coating of straw against them six or eight inches thick; then put your mould a foot or fifteen inches thick against that. When nearly headed, lay a board along the top (to keep rain out) for a few days. This allows them to heat, and the moisture to pass off. When finishing, put about half a bundle of straw about twelve feet apart, along the top. This lets all heat that may rise pass off. I build my pits north and south, so that the south is easily opened and the north side stand. Care must be taken in removing, that a knife is not used in stripping the leaves. If they are cut, they bleed and rot. Pull the leaves down. I store ruta bagas and carrots in the same way. I am now using roots I put up last fall as above, and have not as yet met a bad one. If you put them in a cellar, cover them with coarse hay or straw to exclude air and light, as these make them shrivel.

If you wish, I shall give you my system of feeding to milk cows, and for fattening, both of which I use roots for to advantage. H. *Newton, New-Jersey.*

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A State Agricultural Society has been chartered in Kentucky, with an appropriation of $5,000.

## Management of Dairy Cows.

MESSRS. EDITORS—In the April no. of *The Cultivator*, I noticed some inquiries in regard to several points concerning the management of cows. As I have been connected with a dairy ever since I can remember, and believing no good farmers will pursue a course of management with either dairy or farm without first satisfying his mind with good reasons for so doing, I shall take the liberty to respond to the call of your correspondent, giving him the mode of management among dairies in this vicinity, together with their reasons, from which your correspondent may draw his own conclusions.

In answer to the first query—Is it best to milk a cow that is giving milk up to the time of calving?—With dairies here it is calculated to have their cows come in about the month of March, and not to milk from six to eight weeks prior to calving. The reason for discontinuing milking for that period, is—1. The milk shrinks down to a small quantity, which soon becomes almost worthless for family use—2. A cow needs some respite to recruit her. It is enough for her to nourish the fœtus. This applies to a dairy of cows fed upon hay and oat straw until near the time of calving, when they should have good hay cut in the herbage, to be followed about the time of calving with equal parts of corn and oat meal, 4 quarts per day.

There are cases of cows calving in summer, in good condition and high feed, which may be milked up to the time of calving, and give good milk. In such cases probably no injury results from milking them. But when milk lessens in quantity and deteriorates in quality, nature indicates the proper time to cease milking.

Your correspondent adds that he has a cow 5 years old, which gave promise with her first calf, of becoming a good cow, but has not as yet filled his anticipations. He asks if this is the effect of milking too long? I should think not, from the fact that such instances are known where the heifer has been dried off at the usual time. Neither are these instances rare, nor is the quantity of milk given by the heifer with the first calf, a safe criterion to judge whether she will become a good cow or not. Some heifers, which with their first calf give but a small quantity of milk, will in two or three years become good cows.

Query 2d. Is it best to feed cows before, at the time of, or after milking? I think it immaterial, as the process of digestion does not take place during the time she is eating or immediately afterward. She is a ruminating animal, and must first masticate her food. We usually, when feeding both hay and meal or roots, feed one before and the other after milking.

Query 3d. Is it best to milk at regular intervals of 12 hours, or to milk half an hour after sunrise and at sundown, all the year round? Milk at regular intervals of 12 hours as near as possible, by all means, especially during the hot summer months. Cows then feed mostly in the morning and evening, choosing to rest in the cool shade through the middle of the day; hence they should be milked and turned out before sundown.

As regards the manner of milking cows, the quickest way a cow can be milked and milked clean the better, and this can be done in one operation as well as two.

His experience in salting cows seems to be the reverse of dairymen in general. An ounce of prevention is worth a pound of cure. A small handful of salt given to cows twice a week seems to act as a preventive against many of the diseases incident to neat cattle. Besides regular salting in small quantities, saves a great amount of labor at the churn—*a fact worth knowing* to those who have to toil an hour or more to bring a few pounds of butter, and perhaps then of an inferior quality. Our dairy maid has repeatedly told me when I had neglected to salt the cows at the usual time, by the churning.

In regard to spaying cows, I am not as yet satisfied with its utility for dairy purposes. I have never seen the operation performed, but should judge from the anatomy of the cow that the operation cannot *always* be safely done even by a skillful veterinarian.

I hope, when the successful competitor for the greatest amount of butter and cheese made through the season, shall have *won* his laurels, that the various gentlemen who contend for the prize will give the readers of *The Cultivator* their modes of management in their respective dairies, which no doubt will be thankfully received by them. A. B *Charlotte, Vt.*

### Profits of Dairying in Cayuga County.

L. TUCKER & SON—Having noticed of late, several articles in *The Cultivator*, relative to the profits of dairies, I take the liberty of sending the report of a dairy in this town. And, as it belongs to a neighbor in whose business I have no interest, I suppose I may be pardoned if I brag a little.

The dairy belongs to WILLIAM WHITE, and is managed by himself and wife. It foots up thus: From 14 cows, all of native breed, and managed in the ordinary way, he sold 2,920 lbs. of butter at 25 cents per pound, which amounts to $730.00.

From the buttermilk, after deducting the value of grain fed, he made pork enough at $8 per 100, to come to $163.00—14 calf skins, at 62½ cents, $8,75—Making a total of $901.75, or an average of $64.41 per cow.

This we claim as ahead of anything yet published in The Cultivator for last year, and we challenge the state of New-York to beat it. The farm of Mr. White consists of 110 acres, which cost, two or three years ago, $25 per acre. He sold from it last year over $1000, worth of produce, the result of the labor of himself and wife alone. Considering the amount of capital, and the labor, where can it be beat? H. H. TUTHILL. *Sempronius, Cayuga Co., N. Y.*

### Churns and Churning.

MESSRS. EDITORS—I notice in a late number of your excellent paper, a statement recommending Skinner's centrifugal Double Beater Churn. I fully concur in the statements of the Country Lady, but wish, for the benefit of all concerned in the dairy business, to add that the churn is not only a great saving in butter, but also in time, which I think no small consideration, a child from eight to ten years being able to churn for a dairy of ten or twelve cows, with comparative ease, and in much less time than is usually required. Cream should be of the right temperature, say 56° in summer and 62° in winter. I use a thermometer, and consider it indispensable in butter making. The churn is very simple in construction and not liable to get out of order, and is very easily cleaned; you have but to pour in hot water with a little soap, turn the crank a few times, and the churn is cleaned. I have used the above named churn the past season, and notwithstanding my strong prejudice in reference to patent churns, believe it to be the thing long sought for by all. For certainly, if there was ever a thing needed, it was an improvement in churns. DAIRY WOMAN.

We know nothing of the churn alluded to by our correspondent, nor by whom or where it is manfacturer; but if it is equal to the representations given of it by "A Country Lady," and "Dairy Woman," the manufacturer would do well to let the public know where it can be procured; and if he will send us one of them, we will endeavor to make good use of it.

## Garget in Cows.

MESSRS. EDITORS—I have frequently noticed in the Country Gentleman, inquiries from various individuals, for remedies to cure the garget in cows, and also the answers to those inquiries; and I suppose that the different remedies recommended by different individuals, have been used successfully by them. The use of *garget root*—also called crowberry by some—has been frequently recommended, and is perhaps used with as much success as any one thing. The directions for using this article, as well as that of many others, published from time to time, for the cure of the different diseases, which the various kinds of domestic animals are liable to, I think often fail of doing the good which they might, and which they are designed to do, simply because the individuals who write them, are too indefinite in their directions. The manner of applying the remedies proposed are not sufficiently described and explained. For instance, a correspoedent in a late No. of the Country Gentleman, says that garget root given a few times will effect a cure of this disease. I suppose that the root is to be given to the cow, though he does not say so; neither does he tell *how much* is to be given, how often, at what time, or in what way.

Another says that a seaton or rowel of garget root put into the cow, will cure the disease, but he does not inform his readers in what way, time, or in what particular place it is to be placed; consequently the remedy is not applied, because the individual is at a loss to know how to apply it, or not knowing the effect that will be produced by it, he is afraid to make the application lest he injure the animal, and thereby do more hurt than good; and especially is this the case in giving the garget root, as it is well known that this root is deadly poison to the horse, and a small portion eaten by a horse will cause its death in a short time. I have been told by those who have given it to cows when they had the garget, that they would eat it readily and without injury to them,—that a little of the root, given to the cow affected, would generally cure the disease—that a good way to give it is to take some raw potatoes and cut holes in them, and put a small piece of the root in each potato and let the cow eat them.

At different times I have had two valuable cows lose the use of a part of their udders, in consequence of having the garget, and in each case I made use of numerous remedies in the form of an outward application to the udder, but without receiving any benefit from them.

A short time after the last cow had the disease, a friend of mine was visiting me, and being in the yard at night while I was milking this cow, he inquired—what was the matter with her udder? I told him that she lost the use of a part of it in consequence of having the garget. He replied that there was no need of cows being injured by that—he could cure the worst case of the disease in three days—that the hardest case of the garget that he ever saw, was cured in less than that time with a peice of garget root not larger than a plum, by putting it in her dewlap for a rowel. He said the effect of putting in a seaton, would be to draw the swelling from the udder—that he put it in the dewlap, in order to get the swelling as far from the udder as could be, and that in this place it would be the least trouble to the cow, as in some cases there would be considerable swelling about the seaton. Immediately after this, I procured some of the garget root for future use. In a few weeks this cow of mine had another attack of the disease. One part of her udder was swollen very much and quite hard, so much so that I could get no milk from it. I now concluded to try the efficacy of a garget seaton. With a sharp knife I made an incission in the side of her dewlap just forward of the brisket, and inserted a piece of the root about the size of a common plum, and took a stitch with a needle and thread across the cut, to prevent the seaton getting out. The result was as follows: In about twelve hours from this time the swelling and hardness in the udder had diminished considerably, so that I could get some milk from her. I noticed at this time that the swelling had extended along on her belly towards the brisket, and that there was some swelling about the seaton. In twenty-four hours the swelling and hardness in the udder were nearly gone—that around the seaton much increased; and in less than two days the cow was apparently as well as she had been, gave milk as freely, and as good as usual. The swelling on the dewlap continued for a few days, then subsided and healed up. This remedy is a safe and cheap one, and can be quickly and easily applied by any one without injury to the cow, and if it in any case should not effect a cure, it will do no hurt, which is more than can be said of many remedies which are applied for the cure of diseases. C. T. ALVORD. *Wilmington, Vt.*

I will mention a simple remedy for garget, which I have tried successfully many times: Wash the udder with salt and water, twice a day, and it will generally disappear. If the case is obstinate and has been neglected, Garget Root or Crowberry, given a few times, will effect a cure. A. T. JUDD. *Hadley Falls, Mass.*

## Cement Cellars—Water Troughs.

MESSRS. EDITORS—Can you or any of your numerous subscribers, inform me of the best mode, or how to cement cellars, or make a hard, smooth and durable bottom, sufficient to keep out rats and moisture, the cellar bottom being stiff blue clay. Also, any information how to construct a trough for watering stock, and the best way to supply and let off the surplus water, and have it dry around the trough, will be thankfully received by a subscriber. A. B. *Charlotte, Vt.*

Mix 2 parts of the best water lime, or cement, (proved such,) with 3 parts of sharp, clean sand, and spread immediately over the cellar bottom. This will become like stone. A more perfect bottom, and requiring less cement, is made by first finely and evenly paving the bottom, then applying rather thin mortar of water lime. It runs down among the stones, and all form a hard mass. The best mortar will soon harden, and it is therefore best to mix the lime and sand *dry* first, and then mix with water such portions successively as may be quickly applied.

A water-trough may be made oblong of pine plank, or other wood not liable to warp; or a large tub may be used, one of the best of which is made by cutting into two parts an old *oil hogshead*, well washed with ashes to prevent an oily taste of the water. This will be very durable. The water may run off in a drain filled with stone and paved on the top—or through a tile drain, if the soil will not become worked up into mud around the place of watering.

## A Safe and Convenient way to Preserve Grafts.

MESSRS. EDITORS—I wish to inform the readers of the Country Gentleman how to preserve scions for grafting, with no danger of failure and with little expense or trouble. By packing grafts in saw-dust from green or unseasoned hemlock logs, (and perhaps saw-dust from any other moist timber would be equally as good,) I have frequently kept grafts from November till April or May in the most satisfactory condition.

Sand will answer a good purpose in skilful hands, but would not succeed well with all, for if too dry it absorbs too much moisture from the grafts, and if too moist is more destructive still, and at best is injurious to the knife in grafting. By the above method of preserving grafts they may be collected at any time from November till April, and kept in a cellar till they are wanted for use without any danger of failure. E. S. H. COBB. *Hamlinton, Pa.*

## The Cultivation of the Beet-Root.

MESSRS. EDITORS—The field beet root or mangold wurzel, has of late years been cultivated to a great extent in France for the purpose of manufacturing brandy therefrom. For many years, previously to those in which the mangold wurzel had been extensively used for the distillation of brandy, vast quantities of sugar had been manufactured from beets. The manufacture or distillation of brandy has proved to be so much more profitable than the manufacture of sugar, that many large establishments formerly used as sugar factories, have been remodelled and converted into distilleries for the preparation of brandy from the same species of roots.

These facts have recently attracted the attention of enterprising agriculturists in Great Britain, and as the moist climate of that country is much more favorable to the successful cultivation of beets and other roots than the more arid climate of France, it seems highly probable that a business which has proved to be quite profitable in the latter country, should be still more so in the former. Movements are now being made, therefore, having in view the extraction of alcohol or spirit from the field beet root. The alcohol, or spirit, procured by distillation, is not the only product of this mode of employing the beet root which renders it a profitable one. The pulp which remains as refuse has been employed in two different ways; first, as an article of food in the feeding of stock and the fattening of cattle and sheep; and, secondly, as a material for the manufacture of paper.

Now it has appeared to me that the facts furnished by the extensive employment of the beet root in France for distilling and other purposes, as also the movements at present being made in Great Britain with a similar object in view, are not undeserving of notice among the agriculturists, and the distillers of alcohol, for use in various arts, on this side of the Atlantic. For even although spirituous liquors were wholly set aside as beverages, and a judicious Maine Law in successful operation throughout every State in the Union, still there would be a large demand for alcohol and proof spirit for use in pharmacy and various other arts. And although our climate is not so favorable to the growth of beets or other roots, as that of Great Britain, still I know of nothing that would prevent such crops of mangold wurzel as might be raised in several of the States, from becoming quite profitable to the producers both of the raw material and of the manufactured article.

With such views in regard to this new mode of employing an important agricultural product, I would solicit the attention of some of our more enterprising men, both farmers and distillers, to some specimens of the way in which this matter is regarded by some of the more enterprising of our agricultural brethren on the other side of the Atlantic. I submit the estimate of produce or yield per acre, and the calculations of prices and profits, as I have found them in foreign journals, leaving to each reader the task of making such deductions, modifications and alterations, as the over-enthusiasm of the projectors of a new branch of industry, together with the differences in the climate, and the currency of the two countries, may seem to each to require.

In some districts of Great Britain as much as 40 tons of mangolds have been raised on an imperial acre —probably by means of liquid manuring—and it is thought to be no exaggerated estimate when it is calculated that 25 or 30 tons may be secured as an *average* crop, if *proper means* are taken.* This produce may be estimated at £1 (about $5) per ton or £25 to £30 per acre. The establishment of distilleries for the extraction of alcohol from mangolds would make a market at that price for large quantities of these roots. As has been already stated in this paper, the fact that the manufacture of spirit from the field beet has been carried on to a large extent in France, and that it is rapidly extending at this moment, proves that the project herewith submitted is not a visionary one. If it is a fact, as it is stated to be, that the climate of France is so much drier than that of Great Britain as to restrict the produce of roots, per acre, to about one-half of what can be raised in the moister climate, then the growth and manufacture now under notice should be much more advantageous in the latter than in the former country.

It is no small recommendation of a spirit made from beets, that it would be produced from a raw material not employed as food for man; so that, in seasons when the prices of grain rule high, the price of breadstuffs would not be increased by the demand for purposes of distillation.

According to the best authorities, 100 lbs. of field beet will yield from 10 to 12 lbs. of proof spirit; and the smallest of these quantities is equal to about 6¼ quarts. Let it be taken at 6 quarts, then a ton (2240 lbs.) of mangold will yield 120 quarts of proof spirit. The produce of one acre will thus yield of proof spirit 3600 quarts if the yield be 30 tons, and 3000 quarts if the crop should be only 25 tons. Taking the lowest quantities or 25 tons of beets and 3000 quarts of proof spirit, there would be a return according as the price of the spirit varied from two to four shillings per gallon, of between £75 and £150 (about $375 to $750) per acre, in the product of spirit alone. Or suppose that the farmer disposes of his mangolds to a neighboring distiller at £1 per ton, he would have £25 or £30 as the case might be—a sum which would amply remunerate him, while the probable result seems equally favorable to the distiller.

But in addition to the spirit, there is another item of profit in the dry fibre and tissue of the mangold. This pulp or fibre, after the whole of the saccharine matter has been extracted, is worth at least £10 (about $50) per ton, as a material for the manufacture of paper. This fact has been ascertained on reliable authority; and it is supposed that 30 tons of beets would yield about 1 ton of fibre or pulp. Paper has already been manufactured from this fibre. (In this estimate of the value of pulp for the manufacture of paper, there must be some considerable exaggeration certainly; but we give it as we find it.)

This pulp may also be employed for feeding purposes. Some very interesting experiments have been published in France, of the use of this along with other substances, in the fattening of cattle and sheep. About 80 to 90 lbs. of pulp appears to be the quantity which an ox will consume daily, with a moderate allowance of clover-hay and straw. This may, after further trials, prove a more useful and more profitable means of using the pulp than employing it in the manufacture of paper. Compared with turnip, weight for weight, this pulp is more valuable as a feeding substance than even the most nutritious variety. The extraction of the saccharine matter deteriorates, without doubt, the nutritive quality, but, on the other hand, as more than 80 per cent. of the mangold is water, a great proportion of this is pressed out along with the saccharine matter. In France it is generally used by the sugar manufacturers and distillers themselves, and when sold the price varies from about 5 to 10 francs per 1000 kilometres, which is nearly one ton.

As a source of alcohol there is a great contrast between an acre of beets and an acre of barley, which

* These *estimated* averages are nearly double of the *actual* averages as shown in the Statistical Returns of England and Scotland.

is the grain most commonly employed for distillation in Great Britain. Supposing that barley should yield 60 bushels per acre, of 55 lbs. per bushel, even this large produce would not yield one-third as much spirits as 30 tons of mangolds. From 100 lbs. of roots 10 to 12 lbs. of proof spirit can be extracted, and from 100 lbs. of barley about 40 lbs. But the whole weight of an acre of barley will yield only 1320 lbs., or 840 quarts; while an acre of mangolds will yield 67,200 lbs., or 3600 quarts of spirit. (Corresponding calculations may be made as to the grain used in this country.)

In every aspect of the subject, the employment of beets as a source of alcohol seems deserving of consideration. The more extensive cultivation of roots would enrich our lands, or save them from exhaustion, and the products of a beet crop might furnish large profits here as well as in other countries. OBSERVER.

## Liquid Manures.

MESSRS. TUCKER & SON—Your Salem correspondent, R. B., complains that when liquid manures are recommended, instructions for their use are not given. He asks "how much guano, how much soot, and how much urine, to 150 gallons of water?"

Now R. B. has a previous question to settle. Are his soils such by nature, or by underdraining, that any quantity of water will readily pass off through them? If not,—if the water has no way of escape but by evaporation, then liquid manuring is out of the question; for nothing is better settled than that, in order to its beneficial application, the soil, and not only so, but the subsoil, to a depth of at least three feet, must be pervious to water.

If this question is settled in the affirmative, then another arises—a question of economy—has R. B. any means of applying liquid manure, at a very small expense? If not, liquid manuring is out of the question with him, unless he wishes to farm without a profit, as I suppose he does not. You may water a small garden plot with the hand engine, without loss of labor. Possibly you might apply liquid manure to a very small field, by means of an ox watering cart, if very near the barn, with paying results. But you can never afford to apply it to a considerable mowing plot, unless you have the means of doing it, at a greatly diminished expense, as compared with either of the above.

And now for R. B.'s question:—Five lbs. of guano, 20 lbs. of soot, or 50 lbs. of putrid urine (it should be used in no other state,) would be quite enough for 150 gallons of water. Were you to reverse the form of the question, and ask how much water to a ton of guano, of soot, or of urine, the answer would be easier. It would be simply—a great deal more than you would be willing to apply, by any means ordinarily existing on a farm. The idea of liquid manuring is not that of besmearing over the growing plants with a mixture about as thick as the painter's oil and lead. It is rather that of watering with a nearly transparent fluid. The first falling rain, after a long dry spell, especially if it be near a city, where smoke, soot and various gasses have arisen and mingled with the falling water, gives the best possible idea of liquid manuring. Indeed it is liquid manuring, in its perfection; and any liquid manuring which does not pretty closely resemble it, is wrong, and does not deserve the name. The substances dissolved, must be diluted in large quantities of water, or the object—that of forcing plants with food convenient for them—is not gained. We want that the water should carry the food down to the roots of plants; but this it will not do, unless applied in great quantities.

Liquid manuring is next door neighbor to irrigation—is almost the same thing. Either implies a homœopathic dose of some fertilizer in a plentiful allowance of water; and the great weight of the fertilizer, thus diluted, will be an insuperable obstacle to this mode of application, till some way shall be devised for applying it, for a less number of mills per ton than it now costs cents. But if your correspondent will put on his rubber overcoat, and sow his guano, say 250 lbs. to the acre, just as a northeast rain is commencing, he will, by the aid of Providence, give it as much as 150 gallons of water to every five pounds of guano. This would be a very respectable liquid manuring. The harder and longer the rain, if his ground be porous and not too steep, the better; and if he would apply his soot and urine, as top-dressings, in the same way, I see not why it would not be good practice. If the application were made rather late, after the grass had started pretty well, there would be less loss of ammonia; and possibly it might pay to make it at different times, with an interval of ten days or a fortnight between. J. A. N.

## Cure for Fistula and Poll Evil.

MESSRS. EDITORS—I give my experience to your subscriber in Fallston, Pa., in the cure of Fistula or Tumor on the withers of horses and also Poll Evil, as follows:

Having procured a small quantity of arsenic (virulent poison) of a druggist, take a large goose-quill, cut off both ends, clean the barrel inside, make a piston-rod of hard wood to fit the barrel of the quill, split the small end of the quill on one side half way up; now fill the quill half full of the coarsely pulverized arsenic; introduce the small end of the quill into the place of discharge of the tumor nearly the whole length of the quill if you feel no resistance, or as far down as it will go easily. Now with the piston-rod force the arsenic out of the small end of the quill into the bottom of the tumor. If you doubt (through accident) having deposited the whole quantity of arsenic, prepare another quill and deposit an other charge. It will do no harm, though one complete charge is sufficient. Now leave the horse to his fate for from 10 days to 3 weeks, only give his usual food of hay, oats and water. Within this time, probably in 4 days, he will begin to swell about the tumor, which will increase and frighten you; but never fear, it is the best symptom. Presently you will see a crack or separation in the skin between the sound and dead flesh all round the tumor. You may or not, as you please, make a wash of chamberlye and copperas, and clean off his shoulders, but do not attempt to extract the tumor by the least force as you will break off the tap-root by which the cure will not be perfect. When this lump of dead flesh (the tumor,) drops out of itself, with the above wash cleanse the sore to the bottom; be particular to see if any root or stringy dead substance remain; if so, drop on it a particle more of the arsenic. Continue this examination and application until you are sure no dead substance remains. After this, with the above wash, cleanse as often as you please. If the fistula be large, one and perhaps two of the fin bones may protrude. If they appear black and dead, cut them off carefully before the new flesh grows over them.

The horse should not be allowed to stand by or run in the pasture with other horses, as by itching he will solicit them to bite or injure the live flesh.

I will warrant a perfect cure of Fistula or Poll Evil for $8, having done it repeatedly and never failed of a perfect cure. CHARLES BOOTH. *Lyn, C. W.*

## Colza and Rape—Culture and Uses of.

These plants have hitherto secured but a small amount of attention in the United States. The trials which have been made and reported, are sufficient to render it probable that the more common of the two—rape—may be cultivated with advantage here, as it has been, a great length of time, in England and on the Continent of Europe. We want, however, more light upon the subject, and this must come to us mainly through carefully conducted experiments in different districts and latitudes of our own country. Here is an opportunity for the more patriotic, public-spirited and enterprising of our agricultural brethren, to confer benefits upon their brethren and upon their country. More trials are needed to determine its exact comparative value as a forage plant, for soiling and the supply of food to dairy cows and the farm stock generally, during the drier portions of our summers. We need more trials in order to determine whether these plants, or either of them, are capable of living through our rigorous winters. On these and other points connected with the culture and capabilities of these forage and oil-yielding plants, we stand in need of more accurate and reliable information. We trust that there will be found in the different States men of enterprise and public spirit, in sufficient numbers, to institute experimental trials durir g the present season, to be continued and repeated in subsequent ones, by the results of which information of much value to individuals and to the country at large may be obtained. All engaging in such experimental trials and reporting their results, will be public benefactors.

Perhaps the most instructive report yet given to the public, is that which appeared in the issue of the *Country Gentleman*, Jan. 3, 1856, from the pen of LEVI BARTLETT, Esq. In that article there are sufficient indications of the proper mode of culture to enable any one to conduct a trial on a small scale; and the useful applications made of the plants seem to have been sufficient to insure any one against loss in making some similar experiments. We trust that in the course of next winter we will have a few more experiments to report.

The Colza is a plant of the same genus or family, but of a different species. We are informed that "it is an article of immense importance in French and Flemish husbandry." It is cultivated mainly for its seeds, which are crushed and pressed for their oil, similar to flax-seed. The oil is used to burn in lamps and for a variety of other useful purposes.

At the last meeting of the U. S. Ag. Society at Washington, a communication upon the subject of this plant and the oil to be obtained from its seeds, was received from Dr. JOHN WARE of Boston. He states that during a late tour of a year in Europe, in company with Prof. TREADWELL of Cambridge, their attention was frequently directed to the comparative qualities of the various articles employed for procuring light in the different places they visited. Among all the articles of this kind which came under their notice, the oil of the seeds of the colza seemed preferable to all others, from the freedom with which it burned, the excellence of its light, and the small amount of impurities which were deposited on the wick. This oil is extensively used in Paris, and is getting into use in London also. The plant from which it is procured is extensively cultivated in France, and still more in Belgium, being considered a branch of industry of great importance. While in Paris Dr. WARE met with Mr. EDWARD BROOKS, who during a long residence in Europe, had given much attention to the oil-producing plants, and had become so impressed with the importance of introducing the colza into the United States, that he had caused an experiment to be made on his farm at Medford, Mass. Dr. WARE has tried an experiment also, and the results, so far as the growth of the plants and the production of the seed were concerned, exceeded his expectations. Though colza, like other plants of the cabbage family, is a biennial, Dr. Ware is of opinion, that the crop may be ripened sufficiently in Massachusetts, if put into the ground early in June. Dr. WARE intends to continue his experiments; and it would certainly be desirable to have similar trials made in different varieties of soil and climate, as it must be regarded as almost certain that, in *some* regions at least, of our widely-extended country, the colza may be successfully and profitably cultivated. "The increased and increasing consumption of all kinds of oil, and the great rise in their price, render it almost a matter of necessity that some substitute for those in use should be found. The perception of this necessity is most strongly shown, by the variety of imperfect, and often *unsafe* articles which are constantly pressed upon the public." A good and safe oil for illumination, and at a cheap rate, is certainly a *desideratum*. Let experiments, therefore, be multiplied.

## Manures.

Much is now written and published in the agricultural periodicals of this country upon this subject, and it is well that it is so. Farmers are waking up to their true interests, but I cannot but think that there is danger of placing too much reliance on the chemicals, —the phosphates and superphosphates, the guanoes, gypsum, &c. These are all well enough in their places, and as auxiliary to the genuine farm manure made in the barn-yard, hog-yard and compost heap, will no doubt pay well for the using. They are stimulating and specific in their nature, and act powerfully on some soils for a crop. But will it do to depend on these alone? Do they, in a long run, impart any richness, strength or depth to the soil? If not, by a dependence on these alone, and by a continuous use of them, the soil must become impoverished. To get large crops there must be sustaining elements in the soil; and after the first virgin fertility is extracted, a return must be made to replace what is lost by a continuous cropping, or the best of lands will deteriorate I have no doubt but some of these powerfully specific manures may and do have a wonderful effect on some old soils apparently much worn, by drawing upon the latent energies and rousing into action every particle of fertility left; but let this process be followed without the aid of the barn-yard, and their effects must become imperceptible.

Some thirty-five years ago, when plaster first became known as a fertilizer in this part of the country, I knew a man, the owner of a beautiful interval farm on the Connecticut river, who became highly enamored with this article, and suddenly came to the conclusion that he should never need any more manure. Every 100 lbs. sowed broadcast upon his grass lands made him an extra ton of hay, and his only trouble was how to get rid of so much; he invited the village people to purchase grass standing at a cheap rate, and hay it themselves; and having but little pasture land, he sold off his cattle, and was getting rich rapidly by selling hay and grain. As his lands had been manured for several years, and were in a high tilth when he commenced this operation, they held out for four or five years pretty well; and when they began to fall off in productiveness he began to increase the quantity of plaster, until the 7th or 8th year, when they produced but little, scarcely enough to pay the labor of getting a crop of any kind. He was then loud in his

execrations against *Plaster Paris;* the cursed stuff had ruined his lands, and he never would use another particle, and wished it had all been annihilated before it became known. He did not even dream that the fault was all a lack of sense and judgment in himself. Had he consumed those abundant harvests of hay and grain upon the farm, or even half of it, and made annual returns of the manure to the soil, his lands would have grown rich as well as his purse, and he might have kept on with the moderate use of his first favorite, and then much abused article, to the advantage of himself and farm. As it was, he cheated his soil, and in the end it cheated him; and such will always be the result with him who works against the laws of nature.

For the last twenty years I have been in the constant use of plaster, slaked lime and wood ashes, in moderate quantities, and believe I have derived great benefit therefrom; but never have I seen the day when I thought I could forego the use of all the manures that could be made upon the farm, not only from the hay and a large share of the grain, but also the compost heap, and supplying with refuse materials the yard of the working swine.

I have had no experience with guano or the phosphates, and perhaps I had better not said anything about them, but I look upon them as special manures, good for the occasion, but I believe we should not have so great an *occasion* or necessity for them if we only husband our means to make and save all the refuse fertilizing substances on and about our farms, and turn them into the soil.

Whenever it becomes obvious by experiment that these fertilizers pay well for the using by the increase of production, there must be yet a further gain if we manage for an ultimate benefit, by feeding out upon the farm this increase of the crop, and enlarging the quantity of manure, instead of selling off for immediate profit. In this way, and in this way only, in my weak judgment, should we depend on these manures; and by these means need we neither impoverish our soil or ourselves. J. W. COLBURN. *Springfield, Vt.*

## Corn for Green Manure.

MESSRS. EDITORS—I wish to make the inquiry of you, of the relative value of sowed corn plowed under as a manure. Would it not be worth more than clover or buckwheat? We know we can raise ten times the amount in bulk by sowing the large western corn, that we can of clover or buckwheat. By rolling it down, it can be covered nicely with a good plow. I plowed under an acre last year, just by way of experiment. But I thought it would be safer to be enlightened a little on the subject, than to be groping in the dark. Please to give me your opinion in reference to its *value, compared* with other green crops, and in what state of the corn it would be best to plow it under. OTSEGO.

Analysis shows clover to be the most valuable green crop for manure, according to its weight, and experiment confirms its value. The same weight of cornstalks would not probably yield more than half the amount of fertility. We should discard buckwheat, except as a weed-smotherer, while corn and clover could be had. We have never found so great a disproportion in the *quantity* of corn and clover, as our correspondent states, the corn stalks never exceeding the weight of clover more than three times, on soil of equal fertility. The large sorts of corn, (which however will not grow so thick as small,) may increase the difference.

If cut too green, the stalks will not have sufficiently developed their fertilizing qualities; and if too ripe, they will not decay soon enough. The best time is when the edges of the leaves begin to dry, or about the time that the ears begin to be glaze.

We want measured experiments to determine the relative value of these crops for manure—will not our correspondent undertake a series for this purpose?

## Pear Blight.

MESSRS. EDITORS—Will you through the columns of your very instructive journal, the Country Gentleman, inform me, and a numerous class of readers interested in pear culture, of the comparative hardiness of the following varieties. What I mean by hardiness, is security against fatal blight, for with me even the Seckel and White Doyenne are sometimes slightly affected, and I may add that I regard the Winkfield the most tender of all that I have any experience with, having never been able to save a tree of that variety that was once attacked:—Lawrence, Aremberg, Winter Nelis, Glout Morceau, Easter Beurre, Winkfield, Beurre d'Anjou and Flemish Beauty,—and the stocks best adapted to each. A SUBSCRIBER. *Geneva, N. Y.*

A great deal of experience is required to establish the character of a variety in relation to the blight—a disease so strikingly capricious and uncertain, and variable in its preferences and attacks. General observation, however, concurs in ascribing to the Glout Morceau the greatest liability to blight *in the nursery row*, and to the Madeleine, in the orchard or with larger trees. The Bartlett and Winkfield are also found to be very liable. The others in the list named, more generally escape.

The Lawrence, Aremberg, Winter Nelis, and Flemish Beauty, are best on *pear* stocks, although the two first will do tolerably well on quince. The Glout Morceau is perhaps best on quince, and the Winkfield and Anjou succeed well on both.

## The Borer—Peach Orchards.

MESSRS. EDITORS—I wish to ask the best means, if there is any, for the extermination of Borers in trees, and the mode of treatment to trees, that have been affected by them. Also what is best to plant in a peach orchard, that is, what would be apt to thrive the best, and prove the most advantageous to the trees. A. G. *Ashland, Mass.*

The borer, which perforates the wood, and in time makes it like honey-comb, killing the tree, may be destroyed by punching it to death in its hole, with small flexible twigs. The peculiar crushing sound, will show when the insect is reached. We have known many badly affected trees restored in this way. They must be timely and constantly watched. "The price of [fruit trees] is eternal vigilance." It is said a mixture of a pint of sulphur, a gallon of soft soap, and enough tobacco-water, to soften it to the consistence of paint, will exclude the borer, if applied before it enters.

Exclude all grass and *sowed* grain crops from peach orchards—potatoes, turnips, and beans will do pretty well, but a clean, mellow, *bare* surface, made by plowing and harrowing is best.

## Hardiness of Plums.

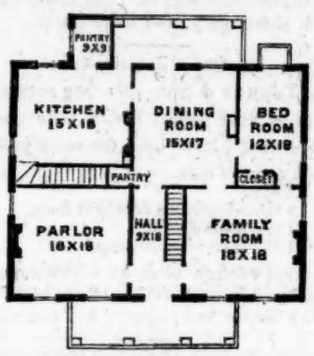
Is the M'Laughlin plum hardier than the Jefferson and Autumn Gage? Last fall I bought about 700 fruit trees, and among the lot were a few plum trees. I now find the Jefferson and Autumn Gage are dead, and the M'Laughlin alive. J. PERINE. *Norwich, Ct.*

Much depends on circumstances, as to the hardiness of plums Sometimes a wet summer will keep up the growth and prevent proper ripening of the wood, and in such cases comparatively mild winters have occasioned more injury than the most severe on well matured shoots. Again, those on wet spots of ground will be more injured than on drier. We have never known the *Lombard* plum tree to be the least injured by cold—it appears to be as hardy as a sugar maple. The

Red Gage is also hardier than most others. The M'Laughlin has generally proved about as hardy as the Jefferson. The Imperial Gage, Columbia, Lawrence Gage, Huling's Superb, Red Diaper, Washington, and others, are rather more liable to injury. The observations of others, in relation to this subject, would doubtless be interesting.

## Plan of a Farm House.

Messrs. Eds.—In your paper of 28th February, seeing something said about plans of farm houses suitable for the mass of large farmers, I take the liberty of enclosing you a plan of a farm house built by me for my own use, which, for convenience and room, has been a good deal commended. The house is 45 feet by 36, without wings, as I consider the nearer we can approach to a square form the more room we will get.




In this plan you will perceive that there is not an inch of lost space any where; every part is put to some good use. There are 10 good rooms, (not one little one,) besides a large garret, and good halls above and below.

I built this house in Mahoning county, Ohio, three years ago, at an expense of about $1,800, the workmanship all being good, but plain.

I have given no plan for the elevation of the house, as it may be built after any of the modern forms. Wm. Little. *Muscatine, Iowa.*

[We omit the plan of the second floor, as the rooms are an exact copy in size and position of those on the first floor. Eds.]

## Rotation of Farm Crops.

Messrs. Editors—Allow a subscriber to give what he thinks a good rotation for farm crops:

1st. Corn and roots after clover, with the best of your manure.

2d. Barley or oats, seeded with clover.

3d. To be mown, one crop of hay and one of seed.

4th. Early pasture and summer fallow, with all manure not put on corn ground, and sow to wheat.

5th. Pasture very little after wheat is off.

6th. Pasture.

With this plan you want six fields, (beside perhaps your orchard, and a meadow for horse hay.) One field is in corn and roots, one in barley and oats, one to mow for hay and seed, one in summer fallow, one in wheat and one in pasture.

Clover sown in the spring, should be pastured slightly in the fall following, if at all. The next season let it get a good growth, and then be sure to plow it the year following.

Sow plaster every time you seed. Isaac Roy. *Phelps, Ontario Co., N. Y.*

## To Prevent Foxes Killing Lambs.

Messrs. Editors—In your May Cultivator, I notice an inquiry for some method to prevent foxes from destroying lambs. Now, as the most efficient method is to destroy the foxes, and which may easily be done, I here give you the "modus operandi."

Take common brook trout, cut them into pieces (head, tail, intestines and all,) of a suitable size to be put into a common junk bottle; fill the bottle, cork it, and place it in the sun. In a few days the fish is dissolved, and is a liquid of a peculiar strong smell. Now take small pieces of meat, bread, sausage, doughnut, cheese, scraps, &c., and into each piece make a small hole and put in strichnine; confine it there by pressing the sides of the hole together. Your doctor will tell you the quantity for each piece of bread or meat. Place these pieces about 30 rods distant, around your field on the outside, on a stone, chip, board, bark, or a large leaf; then pour on a small quantity of the liquid from the bottle. A fox will frequently take the scent of this fish liquid 20 rods, and will pursue it until he finds and has swallowed the dainty morsel. He will soon begin to feel "a kind o'sick," and if your lambs are within his hearing and sight he will not molest them, but think of retiring, and soon becomes no more of this world.

The above is a sovereign remedy for the whole canine family. It is said a wolf will catch the scent of this fish liquid half a mile, and will instantly pursue it until he finds it. This being so, a few persons provided with the above ingredients, might destroy all of the foxes, wolves, wild cats, panthers, lynx, &c., in an entire township in a few weeks. It is said that eels, pickerel, or any other fish which are destitute of scales, will make the above liquid. If dogs are too plenty in any neighborhood, the secret of thinning them off is now published. A Wool Grower.

## For Heaves in Horses.

In answer to an inquiry in the Co. Gent. from E. R. Brown, in reference to heaves in horses, I would advise the using of cut straw quite freely; wet the straw after cutting, mix on corn and oat meal—feed no hay—feed oat straw as hay is fed from racks. The oats should be cut as early as possible and not to injure the grain for market—straw to be kept from rains as much as possible, and taken to the barn bright. More grain has to be fed, and may be as straw is much cheaper than hay to feed. When the weather is too cold to feed wet straw, oats and straw may be fed. A Subscriber.

## How to Fatten Lambs for Market.

A correspondent of the *Maine Farmer*, says that Mr. Elisha Soper of Orland, had for years fed grain to his sheep, for the purpose of forwarding his lambs, but received but little benefit therefrom. He at last thought there might be a better way, so he tried the experiment of feeding his lambs with oats, in a trough made by nailing two boards together, covering the ends, and raising it about six inches from the floor. He puts in the oats and leaves them until the lambs learn to eat them, which he says they will do when about three weeks old. He leaves a passage for his lambs so small that his sheep cannot trouble them, both in his barn and in a yard made for the purpose after going to pasture, and continues to feed until he sells, which is in June. He has lambs ten weeks old, that will dress sixteen pounds.

Hugh Pumpkin.—We have received from Dr. John Doy, of Lawrence, Kansas Territory, seed of a *potato pumpkin*, weighing 105 pounds, and measuring five feet in circumference.

# The Housewife.

### Protecting Dried Fruit from Worms

MESSRS. TUCKER & SON—I can inform your correspondent, W. C. HEALY, of an effectual method of preserving dried fruit through the summer, which we have practiced for several years. We place it in a steamer, or any tin vessel with plenty of holes in the bottom, and set it over a kettle of *boiling* water; then cover it closely with several thicknesses of cotton or flannel, in order to prevent the escape of any of the steam. It should be allowed to remain until *thoroughly* heated, when it can be put immediately (there being no necessity for drying,) into a clean cotton or linen bag, tied up tightly, and hung up in a cool place. Twice in a season, say in May and July, will probably be sufficient. I will warrant this to be effectual. LIBBIE. *St. Johnsville, N. Y.*

I noticed an inquiry in a late no. of the Country Gentleman, how to prevent worms from getting in dried fruit. After the fruit has been dried in the sun, put it on tin or dripping pans, and heat it thoroughly; be careful and not scorch it. Then put it in glass jars, and it will keep for years, or it will keep well in cotton bags. B. D. C. *Langley, Va.*

MESSRS. EDITORS—I noticed in the Country Gentleman, vol. 7, no. 17, an inquiry how to keep dried apples through the summer. I have scalded mine in a hot oven, for a number of seasons, and I have never had any worms in them since. I either scald them in the fall, or in the spring before the weather is warm enough for the insects to hatch. I think the eggs are laid on them in the fall while drying. There are others in this vicinity who have tried it, and they are not troubled with worms in their apples. Other dried fruits can be preserved in the same way. A FARMER'S WIFE. *Conn.*

We have a very simple and effectual method of keeping "Dried Fruit," namely: In the spring, before the worms have made their appearance, (or even after you can detect a *few*,) wash your fruits in a liberal quantity of warm water, as if you were preparing them for cooking. Shake the water from them,—and dry, either in the house or out as may be convenient. They will dry in a few hours. And this time you will be too early for the insects, and therefore secure the eating of your own delicious fruits. ISAAC FILE. *Brunswick, N. Y.*

### Washing Prints.

I will send you a recipe for washing prints, to prevent their fading. It may be new to some. My better half says she has tried it, and knows it will keep the worst colors from fading.

*Recipe*—To wash prints, delaines and lawns, that will fade by using soap—make a starch water similar to starch made to starch prints with, and wash in two waters without any soap—rinse in clean water. If there is green, dissolve a little alum and put in the starch water. C. F. W., SR.

### Tomato Catchup, Sweet Cider, &c.

Will you be so kind as to publish in the Co. Gent., the best recipe you are in possession of for making tomato catchup, apple butter, and for making cider and keeping it sweet in summer. R. R. D.

The tomato should be squeezed up in the hand, salt added, and then allowed to stand 24 hours. After passing through a sieve, add cloves, allspice, pepper, mace, and whole mustard seed. Then boil it to one third, bottle, and cool it. A considerable portion of salt and spice is needed to keep the tomato well.

We cannot give the best mode of making "apple butter."

Fresh or sweet cider is kept sweet by simply boiling down. It is usually thus reduced to one third, but we are assured by those who have boiled it down scarcely one half, that it keeps perfectly well.

### Soda Crackers.

In No. 2 of vol. 7th, of Country Gentleman, C. W. F. inquires for a recipe for making crackers equal to the purchased article. For *soda* crackers, we know the following recipe will make crackers superior to any we ever purchased.

*Recipe.*—To 14 cups of flour, add one cup of lard, four teaspoonsful of cream tartar and two of soda. Rub these ingredients well into the flour, add 3 cups of water, work thoroughly, and bake quick.

### To Make Johnny-Cake.

MESSRS. TUCKER & SON—Having seen many valuable recipes in your paper, I will take the liberty to send you one that I have used for some years.

RECIPE.—1 quart of milk.
2 eggs.
4 table-spoonfuls of wheat flour.
1 teaspoonful of salt.
1 do saleeratus.

Indian meal enough to make a thick batter. Butter and bake on a long tin, half an hour. Serve hot for tea, with butter and sugar. A FARMER'S WIFE.

### French Chemical Soap,

*For Removing Stains from Cloth.*

*Recipe*—Fluid Styrax, Sal Ammoniac, Oil Thyme, } each 1 drachm.
Sal Tartar, 1 oz.
White Venitian soap, 4 oz.
Oil Bergamot, 4 drops.
Yolk of 4 eggs.

Shave the soap fine and pulverize the sal ammoniac, then mix all together; mould into balls or cakes. When applied to the cloth, wet the soap with water; after rubbing the stains several times, rinse off with a sponge and cold water. If not removed by the first application, repeat again. Having obtained the above valuable recipe during my late travels, I send it for the benefit of the correspondents of the Cultivator. H. E. L. *Greensborough, Md.*

### Rose Culture.

If you wish to see your Roses do finely, you must, if the soil is poor, use plenty of manure. The rose is a very rich feeder, and in poor soils in this country but few of the best perpetual or monthly kinds will grow strong enough to flower more than once, or but poorly after the first flowering is over. In making new plantations the thing is easy enough; the ground should be dug deep, eighteen inches at least, and thoroughly rotten manure worked in abundantly before planting. Another thing too is to give them plenty of room to grow. In borders where they are already planted, work in two or three inches of rotten dung about their roots, taking away some of the poor top soil if necessary to make room for it. Street dirt and manure, well mixed up, is capital for roses, as they luxuriate in a gritty soil.

To secure good flowers from the perpetuals or monthlies, as soon as a flower is faded, cut it off, and occasionally treat them to a dose of manure water after midsummer. This stimulates them into fresh growth and flower. This, with copious waterings in all dry spells, will not fail to ensure roses in abundance. E. S.

## Notes from Michigan.

MESSRS. TUCKER & SON—After the severity of such a winter as the past, (the thermometer ranging here from 18° to 30° below zero,) the return of the pleasant weather of spring, its green grass and flowers, the blue bird, robin, brown thrush, sending forth their happy notes, and the buds and blossoms just bursting into a new existence, must fill every one with love and gratitude to that all-wise Being who rules and watches over us, forming every thing for the interest of his creatures. That heart must be cold and torpid that is not able to enjoy these pleasures, and I truly pity those who are confined within the narrow walls of a city away from such happy heaven inspiring scenes as these.

We have had, since the retreat of *Jack Frost* and *Blanche Snow*,* about the 20th March, a succession of delightful spring weather, varied with showers sufficient to push everything forward and give it an early start. Most of our farmers have their oats sown, and are preparing to or plowing for corn. Wheat, considering the lateness at which it was sown last year (and also the bad seed, it being sprouted,) looks remarkably well and promises a fair crop. Rye looks fine and promises heavy crops. But we have one thing to mourn over, which is the loss of our peach orchards; nearly all the trees in this vicinity, both old and young, were killed by the severity of last winter. Some farmers have lost from 100 to 800 trees, and they can't replace them this year on account of the scarcity of means, and the loss of them in the nurseries. Potatoes also that were pitted, were mostly frozen and are spoilt.

But I have had something remarkable occur on my place this winter in the way of roots. I had about 100 bushels of ruta baga, which on account of illness and scarcity of labor last fall, I was unable to harvest, so they were left in the drills. This spring, after the snow left us, I took them up, and with the exception of a bushel or two, they were all sound, and those that I cooked were sweeter than those that were pitted. I have fed them for the past month to my horses, oxen and cows, and they have proved of inestimable value, more so at this season than in mid-winter when corn and fodder were abundant.

Now why would'nt it be well to leave them in the ground during the winter, and cover up with straw to protect them from the thawing effects of the sun, which is the only reason that they rot, freezing and then thawing, and then in the spring uncover and use them as you want them. I imagine that the method would pay well with the sheep farmer, to turn his sheep on them in the spring, instead of the cold barren pastures that they are generally turned into to gain a subsistence.

In regard to prices of produce, every thing is at a point of stagnation—wheat, 75 cents to $1—corn, 50 cents—oats, 31—potatoes, 31—apples, green, 50 cents, dry $1 50—parsnips and beets, 50 cents—ruta bagas, 18¾. WM. F. SANDS. *Jonesville.*

* I have given snow a female's name also on account of its color, and I don't see why its not appropriate as they always live and come together and seem very happy in each other's company.

## Culture and Value of Millet.

Believing that Millet may be included among our cultivated crops to great advantage, we add the following testimony in its favor, from a correspondent of the *Ohio Cultivator*, to what we have already published:

Having with many others suffered from the severe drouth of 1854, in my hay crop, I was induced last spring to procure half a bushel of millet seed. When preparing my ground for oats, I reserved one acre and a quarter for the millet. After corn planting, say about the 1st of June, I plowed the said ground again, harrowed it down, sowed my millet seed, harrowed thoroughly again, and quietly waited the result. Well, after a while the young sprouts made their appearance, looking very much like what is generally called pigeon grass. But after securing my wheat and oat harvests, I had a heavy crop to cut on my millet ground. Leaving a small piece which I sowed thinner than the rest to ripen for seed, I mowed the field, and cured it as clover should always be cured—in small cocks. When sufficiently dry, I carted *five heavy loads* to my barn, and my horses, cows and sheep have thanked me many times for my first experiment with millet. They have all eaten it readily and greedily, and I am so highly pleased with it, that I shall sow much more this spring.

The time for sowing should be as indicated above, when the weather is warm enough to make corn grow readily—from the 1st to the 15th of June—and the time of harvesting comes after the rush of other harvests is over, thus accommodating the farmer, at both periods when it wants attention. It yields seed bountifully, which makes a flour very palatable for man, and is decidedly nutritious for every animal and not forgetting the fowls—they are very fond of it. I say then to my brother farmers, try a piece of millet, and I am confident that if you try it once, you will again.

## Box and other Edgings.

Young box stands the winter much better than that planted several years, besides which it looks slovenly to see a too stout edging, and takes away the beauty of small dwarf growing plants next to it. Now is a good time to do the planting. Many people ruin their box edgings, by allowing the flowers in summer to overrun it rather than cut them in. This keeps the shoots from ripening properly, and frosts destroy it when winter comes.

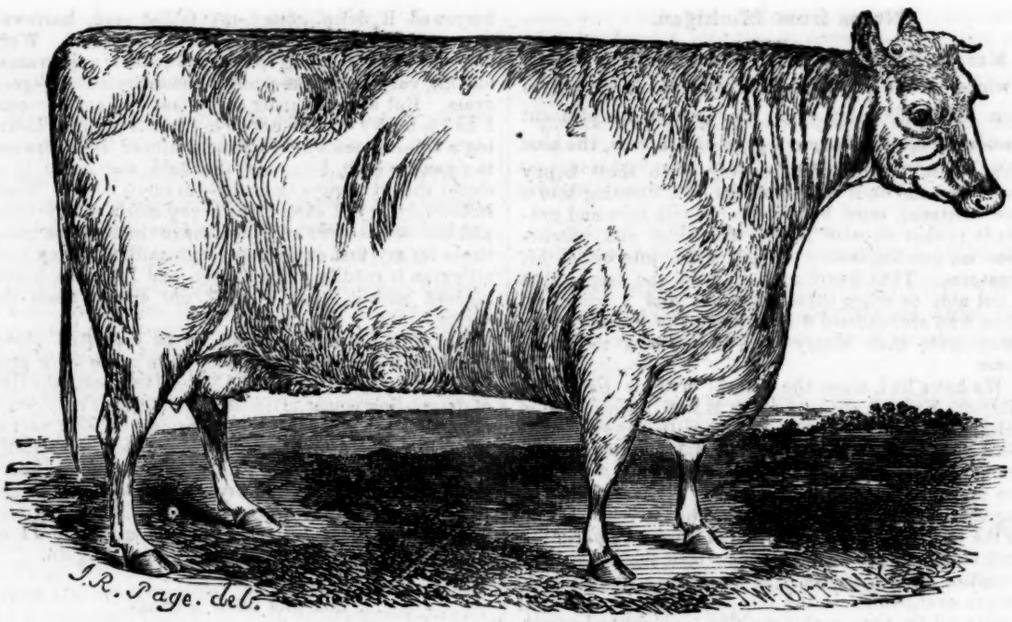
Many other plants look neat for edgings, as Thrift, Thyme, Pinks, or a dwarf growing Iris. In the absence of any of these, many of the annuals do well, especially by selecting such as continue a long time in flower. Of these may be enumerated, Mignonette, Phlox Drummondii, Portulacca, &c.

Another, and what is obtainable by all at trifling cost, is turf. This, when laid down level, from six inches to one foot wide and kept closely sheared down, forms one of the most pleasing borders of any. But except it is kept cut once a fortnight at least, it loses that beauty, and when allowed to get long has the most untidy look of anything. E. S.

## Saving Flower Seeds.

In asking a lady acquaintance this morning for a few seeds of a rare plant she took much pains to show me last summer and extol its beauties and enlarge upon the difficulties she encountered in obtaining the seeds from a distant locality, I received the same answer I had upon former occasions, not only from her but from others—"I really meant to have saved some of those seeds, but I had no paper bags prepared, and I put off making them so long, the snow came on and I lost them all." Upon which I remarked, why don't you save all of the envelopes of the letters received by yourself and the family, and some leisure hour with your scissors cut them transversly through the middle, and with a single dash of a camel's hair brush dipped in gum arabic upon each half, you have two complete seed pockets from one envelop. You can make at least two hundred in fifteen minutes at a cost of half a cent a hundred. "Why didn't you tell me of that before? I'm sure I'll never be without seed pockets again."

Who among the lovers of beautiful flowers will let their seed go to waste for the want of paper seed pockets, when they can be had so easily and at such a trifling cost? ULSTER.




**Short-Horn Cow Duchess,**

Winner of the 1st Prize at the Fair of the N. Y. Sate Ag. Society held at Elmira, 1855. Bred by and the property of S. P. CHAPMAN, Mount Pleasant Farm, Clockville, Madison Co., N. Y. White; calved June 25th, 1849—Got by Duke of Wellington, (3654)—Dam [Matilda] by White Jacket, (5647)—gr. d. [Hart] bred by and imported into this country by the late Thomas Hollis, formerly of Blythe, England. (See Am. Hd. Book, Vol. 1, page 201.)

## Gas Lime—Lime and Sorrel.

EDITORS OF THE CO. GENT.—In a late no. of the "Country Gentleman," it is stated that a correspondent of the Mark-Lane Express cautions the farmers to avoid the use of the refuse lime from gas-works, expressing his belief from experience, that "it will make fruitful land barren." On the other hand, it would appear that at New-Haven, Conn., gas lime sells a cent per bushel higher than common lime for agricultural purposes.

As you express a desire for further information from such of your readers as have used gas-lime, I will offer a few remarks. A fertile soil may be converted into a barren one, by using lime of any description to *excess*; and perhaps there is no farm land, which is sufficiently drained, and receives a full supply of barn-yard manure at stated periods, but what would be benefited more or less by an occasional dressing of lime. There may be soils that are naturally sufficiently calcareous without a direct application of lime, but mine is not of that description. I have used (I think to advantage,) some thousands of bushels of lime. In the summer of 1851, I purchased a boat load (2400 bushels,) from the Philadelphia gas-works, which cost me about 5 cents per bushel, delivered on the wharf most convenient to me, and about five miles from the land for which it was intended. This was about two cents per bushel less than slaked lime from the Schuylkill was selling for. During the autumn of that year, this lime was spread on fields then in grass, at the rate of about 30 bushels per acre. From that day to the present time I have never regretted the outlay, and as a part of one field was omitted, the difference in the growth of the clover was very observable, and such has been the case, to some extent, with the other succeeding crops.

At the time this lime was purchased there was quite a demand for it, so much so that there would have been a difficulty in getting the quantity I desired early in the seasons, as the farmers in the vicinity of the gas-works with their teams kept the supply pretty well exhausted, and I rather think this continues to be the case. I am not able to refer to any accurate experiments that would show the relative value of lime that has been used for purifying gas, and of lime of the same description (oyster shell) which has not been subjected to that process, but incline to the opinion that the difference, if any, is a very slight one. Farmers in general are about as shrewd and as calculating as other men--they are not more given, perhaps, than those of other professions, to spend their money for nought. My conclusion therefore is, that if the refuse lime from the gas-works "will make fruitful land barren," when applied in proper quantities, the Pennsylvania and New-Jersey farmers would have made the discovery for themselves before this.

I have stated that lime used to excess will convert a fertile soil into a barren one, but it would seem from what a correspondent of the Pittsfield Culturist [should have been Boston Cultivator] states, that *sorrel* will grow luxuriantly through a coating of lime about an inch thick! (See Co. Gent. p. 271.) Land, limed at that rate, if I mistake not, would require about a *boat load to the acre*, and the boat must he a large one too. There are animals and men possessing great powers of endurance, and there are soils that will bear a much heavier coat of lime than others; but I should not have thought that even sorrel, with a coat of lime an inch thick around it, would have survived such a dressing. But a thick coating of thoroughly rotted manure cured the evil most effectually, (that is killed the sorrel,) "not a blade of it appearing the next year." Well, if the manure killed the sorrel, the lime it would appear *did not kill the grass*, or prevent it from growing and taking possession of the soil—so that they may have acted well together after all—in a word, if manure will kill sorrel, it is the *safest* application a farmer can use.

I have seen fields however, that had been highly manured, producing fine crops of wheat and corn, and

when these fields were seeded down with grass, the sorrel in a short time take possession, and sometimes to such an extent that they would scarcely be worth mowing. These fields, after having one or two dressings of lime and manured as formerly, would produce an abundant crop ef grass, and the sorrel disappear entirely. I have known a number of instances where this has been the case, on my own land and my neighbors'. I am not curious to know how the lime eradicates the sorrel—whether by neutralizing the acid which some suppose abounds in soils favorable to its growth, or otherwise. I attribute it to the lime, from observing what has followed its use.

There are some farmers to be found, however, who perhaps depend too much on the use of lime in maintaining the fertility of their lands. They would like to substitute lime for barn-yard manure, and after selling off their hay, straw, &c., return a portion of the proceeds in that way. They may succeed in raising good crops a few years, but the soil must eventually deteriorate. In a general way, I think a *smaller quantity* of lime would pay better, especially after the first dressing, say about 40 or 50 bushels of slaked lime to the acre, and on the grass in preference to plowed land. C. *Salem County, N. J.*

## Granulated Roots of Nursery Trees.

We have received an interesting communication of some length, from "A Nurseryman," on the subject of the excrescences or granulations upon the roots of apple trees while growing in the nursery. This communication indulges in severity on those who differ from the writer in opinion, and especially on Dr. FITCH, for expressing the belief that these excrescences are caused by an insect allied to the wooly aphis. Our correspondent says "they are mere granulations, caused by improper or unskillful grafting in the root. * * They are formed by allowing the lower end of the scion to extend beyond the cut of the root, so that as a matter of course, the descending sap, not having any conductor to the roots, granulates."

"A Nurseryman" indulges in censure on what he terms scientific men and theorists, and evidently regards *science* and *practice* as opposed to each other, at least in this instance. Now, on the contrary, Science is only the collection and condensation of all scattered FACTS and OBSERVATIONS, into a *system*—all else is quackery, and directly opposed to science. Practice with limited observation and without science, often itself leads to great errors, as all narrow and limited knowledge is apt to do. Our correspondent's remarks furnish a very obvious instance of this, for he depends on his own experiments, or on those alone similarly situated. Our own observations lead to conclusions diametrically opposite to his. We have raised many ten thousands of trees, both by budding and grafting; and out of hundreds of cases of these excrescences or granulations, more than nineteen-twentieths have been on budded trees, and they have been on the root from six inches to one foot below the inserted bud, and where there was no possibility of the action of the cause which he regards as producing the evil. He says "the cotton aphis never went under the ground voluntarily." Yet in hundreds of instances, where such injured trees have been taken up, the particular kind of "cotton aphis," which appears to cause them, has been found very conspicuously adhering to the bark several inches below the surface, and among the curves formed by the smaller roots.

Now if "unskillful grafting" is the cause of this evil, as our correspondent confidently asserts, why has it in nearly all cases under our observation, been confined to trees not grafted at all? And if the insect "never yet went voluntarily beneath the surface," how did such multitudes of them get further down than the earth was ever removed, until the tree was dug up? Our correspondent "hopes that Dr. Fitch will study his subject a little better, before he favors the public with a second report." We shall not quote these words as applicable to our correspondent; for at the same time that we state the different results at which we have arrived, we thank him for the frank expression of his views, and wish to obtain his assistance and of all other observers, in relation to all matters of importance in connection with successful cultivation.

Barry's "Fruit Garden," a work resulting from extensive observation, advances the same views substantially, as those of Dr. Fitch, and recommends nearly the same remedy, viz: A removal of the earth about the stem, and the application of a mixture of one part of soft soap, eight of water, and lime enough to make a thick whitewash, put on with a brush—or a solution of 2 lbs. of potash in 7 quarts of water—fresh earth being replaced.

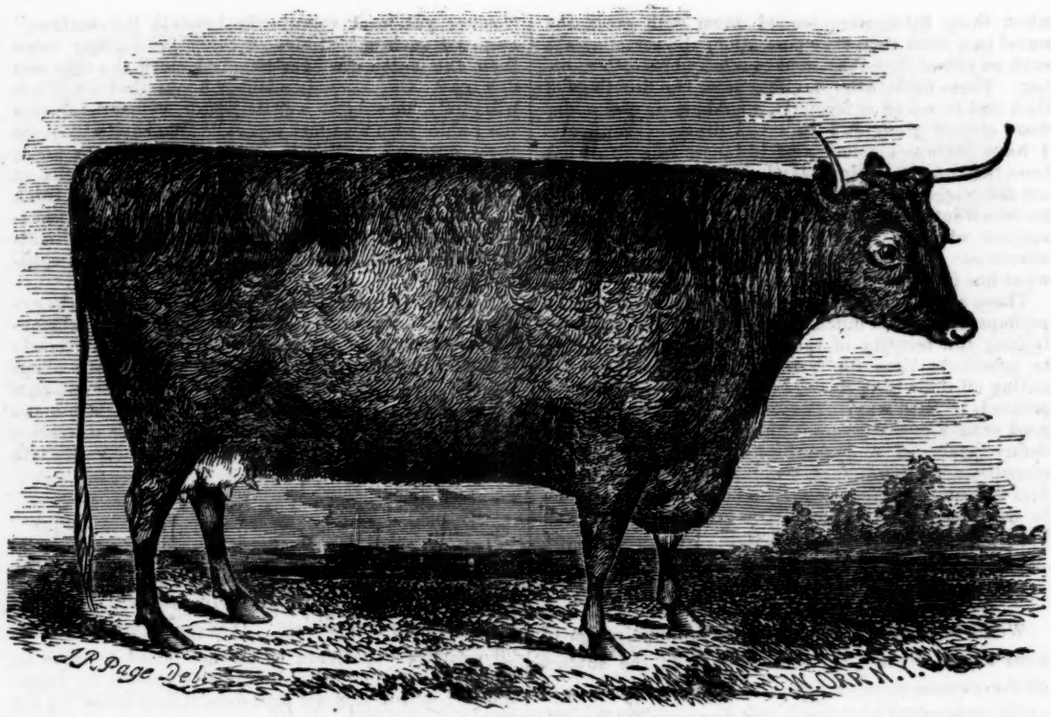
## How to Tar Seed Corn.

Tarring seed corn I esteem an infallible remedy against crows and all kindred destroyers. None of them will eat it when properly prepared. Against wire-worms it is of no use. It is done thus, and with 20 years of experience it has not failed to come up properly with me, or to remain safe against the depredators; still if it is not well done it had better be not tried.

Have ready two iron or other vessels, say an iron pot of about one pailful, and a three-pail kettle, and tar and plaster at hand. Soak the seed corn in rain water, (fertilizers in steep are of no consequence,) as warm as the hand can bear, and set in a warm place ten to fifteen hours, not more, for in case of necessary delay in planting, the seed corn had better be prepared and then put by in the cellar, as it will not spoil, though it may sprout before planting. Put a large table-spoonful of tar with a pint of water in a small kettle, and heat till it boils. In the mean time put about three quarts of the soaked corn into the pot. Having the boiling tar ready, pour into it a little cold water to be sure it is not so hot as to kill the corn Pour this on the corn in the pot. Stir it thoroughly, and each kernel will seem to be coated with a thin skin of varnish. Put a bit of board on the pot, and turn it over, to drain all the water off. Throw a pint or more of dry plaster on the bottom of the larger kettle, throw in the corn, and stir it from top to bottom, adding more plaster as necessary, until all is dry and the grains separated, looking like little balls of hard, dry plaster. Two sticks are best to stir with, one for the tar and one for the plaster. Empty each batch as prepared, into a nail keg or other convenient vessel, and set in the cellar, taking out only enough for half a day's planting, so as not to expose it unnecessarily to the hot sun. No trouble will be found in handling it. LEVI J. HOPKINS. *Throopsville, N. Y.*

KICKING COLTS.—Mr. W. L. F. JONES, of Asbury, gives us the following mode of breaking colts of the bad habit of kicking:—Whenever a colt kicks he takes hold of the head and neck gently, by clapping his arm around and holding on to the nose until he ceases to struggle, patting him occasionally and speaking kind words to him. By doing this a few times, he says the worst case can be cured.—*Prairie Farmer.*

CLEAN FARM.—Mr. A. ROGERS writes to the *Ohio Farmer*, that it is less expense keeping a farm in nice order, than shabby and ragged, and adds:—"If any person will get elderberries enough on my farm of 93 acres, for one pie, I will give him five dollars, and the same for a gill of thistles, burdock or mullen." That is the right way to farm.




**Devon Cow "Fairy." (696)**

Imported by R. Linsley in 1852. For pedigree, see Davy's Herd Book, page 97, Vol. 2. Winner of the first prize for imported Devon Cows at the Connecticut State Fair in 1855. The property of LINSLEY BROTHERS, *West Meriden, Conn.*

## Cultivation of Millet.

Hay is now selling in the Boston market for $30 per ton, and for the last few years it has been worth from $22 to $30 per ton. Under these circumstances, it is natural to inquire, what substitute can be found for this highly expensive article. One substitute which I would highly recommend, is *millet*. Last year I raised three tons of millet, on somewhat less than one acre of land. It was sown in May, and cut in August, while it was in blossom. On account of its great burden, more care is required in curing it; but when it is properly harvested, cattle eat it voraciously. The grass lands in Massachusetts, I am satisfied, do not yield, on an average, more than one ton of hay per acre; and if *three* tons of millet can be raised per acre, and with but a little more trouble and expense, it is surprising that farmers do not cultivate it much more extensively. It is cultivated in this state, only to a very limited extent. Probably three-fourths of the farmers of this commonwealth do not even know the article by sight, though they all "know beans." It is worthy of a much more extensive introduction, not only on account of the immense quantity which can be grown per acre, but because it can be successfully raised on all kinds of soils. It is a gross feeder, but as it derives much of its sustenance from the atmosphere, it is by no means, as some have supposed, a great exhauster of the land. When millet is grown for fodder, it should be sown very thick. The stalks will then be tenderer, more easily masticated, and more nutritious. Some of the stalks in my field last year, where it happened to be thinly sown, were more than six feet in height. They were too rank to be profitable. I am determined to put at least an acre or two into millet this spring. D. C. *Waltham, Mass.*

## Premiums on Farms.

There is no part of the annual volume of the Transactions of our State Ag. Society, to which we look with so much interest as that of the Reports on the Prize-Farms; and we have often expressed our surprise that there should be so few applicants for these Premiums, the number seldom exceeding half a dozen from the whole state, while every county ought to be represented in this competition. All the extra labor and expense incurred in the work necessary to furnish the required Report, would be but trifling, and would be abundantly compensated by the benefit the farmer would derive from an exact knowledge thus obtained of the profit or loss on his own operations. We annex the Prizes offered for this year.

MANAGEMENT OF FARMS.

For the best cultivated farm of not less than fifty acres, mainly devoted to grain growing, exclusive of wood land and waste land, regard being had to the quantity and quality of produce, the manner and expense of cultivation, and the actual products: *Silver Plate*, value $50; 2d, $30.

For the best cultivated farm of not less than fifty acres, mainly devoted to grazing and dairying, exclusive of wood and waste land, regard being had to the quantity and quality of produce, the manner and expense of cultivation, and the management and feeding of stock and of conducting the dairy, and the actual products: *Silver Plate*, value $50; 2d do, $30.

The persons making application for the premiums must submit written answers to certain questions which will be furnished on application to the secretary; and to all who furnish full answers to the questions, premiums will be given, consisting of single volumes of the Transactions of the State Society, or sets of those volumes, according to the value of such reports.

## Dwarf Pear Trees.

The above is a representation of a Duchess d'Angouleme Pear tree, as it appeared on the 18th of October last, on the premises of Mr. J. J. SMITH, the present editor of *The Horticulturist*, from the December no. of which it is copied. Mr. Smith says this tree, and several others exhibiting equally prolific bearing, was purchased four years ago, and was then one year old from the graft.

BUDDING.—It has occurred to me that it would be an improvement in budding apples, pears, &c., especially in a dry time, to cover the new bud *all up*. I think they would be more sure to take. Have any of your readers ever tried the experiment? L. B.

## Improved Dairy Apparatus.

MESSRS. EDITORS—I perceive that you have taken up the subject of the Dairy in a late number of your paper, and I also notice several rival statements during the past few weeks in regard to the produce of several eastern dairies.

Now, no one of our eastern fathers will for a moment entertain the notion that any of their boys, away out here in the western woods, can at all compete with the 'old folks' back east; but if they will listen for a few moments, perhaps they will come to the conclusion that we have yet something out here besides *woods without any timber*.

*On wild feed alone*, from 5 cows and 5 heifers—10 head in all—of the common scrub stock of the country, picked up within one mile of home last spring, your "Hawk Eye" correspondent and his "better half," have made and sold butter, cheese and milk, to the amount of $401.21, besides supplying the family, which has averaged 5 persons—$10 of the amount is from milk; the balance butter and cheese. Now havn't we "showed the biggest calf?" I think so, *all things considered*. Iowa to-day presents to the dairyman and stock grower as good inducements in my opinion, as any other State in the Union, and far superior to most of them.

In reading the article in your last ANNUAL REGISTER, on the Dairy, I was reminded of a purpose some time ago formed, of presenting to your readers a plan and description of an "Improved Dairy Apparatus," introduced by myself into the Western Reserve, eight years ago this coming spring. An account of it was furnished to and published in the "Ohio Farmer," in the spring of 1852, which I clip for your use, if you deem it worthy. This apparatus was the successful result of various unsuccessful experiments with steam and other fixtures, undertaken with a view to lighten the labors of a much loved mother, possessed of a rather delicate constitution; and here I will take occasion to say that after the new fixtures were in operation she used often to remark that she would rather make the cheese from 30 cows than do the work of a small family. How many of the mothers and grand-mothers of New-England, think you, have been brought to premature old age or the grave, over the clumsy, awkward, lifting, back-breaking health-ruining tubs and kettles that have been their inheritance from time immemorial.

The general impression is that dairying is necessarily a laborious business, and so it used to be; but need not be so now.

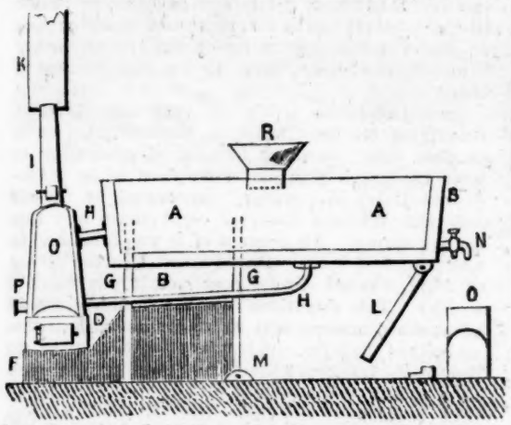
Even in Old England they seem to be as much behind the times as ever, and the journals of our fast country every now and then, for the want of something better, are publishing some old account of the way to make "Stilton" or "Cheshire" cheese, as though we could make just such cheese here. As to neat, tasteful, scientific methods of manufacturing, we can beat them bad, and if they like their own cheese the best, deeming it of better quality, it is the result of peculiarities of *soil, grasses, climate, or age, or all combined*—not of manufacture. Just think of keeping cheese till it is two or three years old in America!! Why out west here, we do well if we can hold on to it *two or three weeks*. A retailer along the Mississippi river, would have to keep an old cheese "a dog's age," if he keeps fresh cheese beside it.

But to return. The objections I have to the steam fixture described often in your paper, as well as to all others that I have seen, are—1st. They are cumbersome, taking up much room—2d. They are expensive in their first cost and maintainance afterward—3d. They are very noisy, and perhaps I might add that in the hands of most dairy-women not perfectly safe.

After much and patient investigation, I am satisfied that for *cheapness, convenience, adaptation to the wants of the dairy, simplicity and durability*, the plan I send you has no superior. Since its introduction, hundreds have been manufactured and sold on the Reserve. I have, nor never had any interest in its sale. It is made and sold by B. P. JAMIESON, Warren, Trumbull Co., Ohio.

I have a compliment for the York State dairymen, and will close. A gentleman of the Reserve, having business east, took occasion to visit some of the noted premium dairies of the state, and on his return I asked him what he thought of them?—"Why," said he, "they have some fine cows and good pastures, but for nice establishments the Reserve can beat them." HAWK EYE. *Keokuk, Iowa.*

After this rambling talk, I will now proceed to the drawing and descriptions referred to in the caption of this article, saying by the way, that if any dairyman can see anything in it suited to his wants he is perfectly welcome to the benefits of it. The sizes are adapted to a dairy of twenty or twenty-five cows, and the drawing represents a vertical section and side view.




A.A. Tin vat to hold the milk; dimensions, 5 feet long, 16 inches wide on the bottom, 14 do. deep, and a flare of 2 inches in length and breadth from the bottom to the top—a rim 2 inches wide around the upper edge for the purpose of fastening to the wooden vat.

B.B. Wooden vat, same shape as the tin, and made enough larger to leave a space of one inch on the sides and ends, and 1½ inch on the bottom, to hold water.

C. The heater—a copper cylinder within a cylinder, the outer one 2 inches larger in diameter than the inner, so as to leave a space of one inch all around, the ends connected so as to make this narrow space water tight. Dimensions inside—diameter at top 5 inches, at bottom 8, height 15 inches; this rests on a cast iron grate over the ash box (D) which is furnished with a door (E) to regulate the draft and remove ashes. This box is supported by a platform (F) which is made up of boards attached to the posts (GG) which are fastened to the wooden vat and constitute its support.

H.H. Copper pipes leading from the heater and fastened to the wooden vat by means of cast iron collars and bolts; the upper pipe to be inserted into the heater as near the top as possible, is about 6 inches long and 1¼ in diameter—lower one same diameter, and should extend at least half way to the farther end of the wooden vat.

I. The draft pipe, 2 feet long, 5 inches diameter at bottom, 3¼ at top, that it may play freely within the stationary pipe (K); it is furnished with a handle and a door to admit fuel and regulate the draft.

L. A swing leg, jointed to an axle made fast to the bottom of the wooden vat; this leg extends the whole width of the wooden vat, and when the vat is in the position represented it drops into blocks fastened to the floor.

M. An axle fastened to the floor to which the frame is fastened and on which the whole apparatus turns.

N. The whey gate through which the whey is drawn into the sink (O); a large sized molasses gate is the best—the sink should be furnished with two spouts, one for whey and one for water used in cleaning out the vat.

P. Water gate through which is drawn the water from the wooden vat and heater.

R. Is intended to represent a wide, flat-nosed funnel, for introducing the water into the wooden vat. Small strips of wood should be laid under the bottom of the vat to support it when the water is drawn out from the wooden one. Expense, all rigged for use, $25.

The method of using the above apparatus is as follows—at night the milk is strained directly into the tin vat—cold spring, well, or ice water, is poured into the wooden one, until the water rises sufficiently high to fill the heater, and surround the milk—this is ascertained by drawing a small cork from an aperture in the extreme top of the heater, made for the purpose of allowing the small quantity of air above the upper pipe to escape. In the morning the newly drawn milk is strained into the vat with the previous night's, and the whole is then warmed to prepare for the rennet. Charcoal is used for fuel. In the first place a shovel of coals is brought from the common fire and introduced into the heater, either through the door of the draft pipe or by removing it altogether; these fall upon the grate below, a few coals are added, the pipe is put in its place, the door closed, the *ash box door opened*, the draft is complete, and the heating commences. Those who are conversant with the simple philosophical principle of the rarity of heated fluids, will easily comprehend the operation of this heater. The fire, it will be perceived, is directly surrounded by a sheet of water only an inch in thickness, consequently it is very quickly heated, and having a tendency to rise, it passes through the short pipe at the top into the wooden vat; the cold water in the vat from its superior weight passes down the long pipe and enters the heater at the bottom; thus a circulation is commenced and kept up, until the whole mass is brought to the proper temperature. The farther end of the vat is affected almost simultaneously with the end next the heater—the heat from the water is easily communicated through the tin to the milk. When the heating has progressed far enough, the ash box door is closed, the draft pipe door opened, and the fire immediately dies out. It will be perceived that this heater operates on an entirely different plan from any "steam fixture"—there is no more pressure on it than on any open vessel of the same height; it does its business quietly, without noise, and as naturally as the blood circulates in a man's veins.

The only precaution is, *never have fire in it unless filled with water*, otherwise it will melt down. A thermometer should be used to ascertain the temperature, as no woman's finger is more uniform in its indications than *some old bachelors' tempers.*

After the curd is worked, and a portion of the whey drawn off, the heater is set in operation, until the curd is warmed to receive the salt;—the water is then drawn into a tub to be used in cleaning up, the swing leg (L) is tripped from under the whole apparatus turning on the axle (M,) the farther end of the vat is depressed to the whey sink, and the whey drawn off as rapidly as possible; this is a matter of great importance (the rapid abstraction of the whey at this point) and has not been as thoroughly provided for in any other fixture, to my knowledge; it also greatly facilitates the cleaning and drying of the vat. I have avoided giving any directions as to the detail of managing the milk further

than was necessary to a proper understanding of the apparatus. I would, however, take the occasion to say that the communications of A. L. Fish, Esq., of Herkimer, N. Y., on this subject, possess more value as guides than any thing I have ever seen. You inquire as to presses. I have but a few words to say, as my experience in this matter has been principally confined to selection. I have seen a great variety of presses but have never seen but one that I considered perfect in every respect, that is, "Kendal's Compound Lever Press." The whole brood of self pressers I consider bastards, inferior to the old fashioned under-the-corner-of-the-house press, and about as rational in principle as for a man to undertake to lift himself over a fence by the seat of his "inexpressibles." Kendal's is right, but I know men who consider $14.00 too much money to pay for a press.

## Fruits for the South.

If it will not be asking too much, I would be very much pleased for you to inform me of what ten kinds of winter apples will succeed best in Mississippi—what ten varieties of pears, both summer and winter—also what ten varieties of cherries. I allude to northern varieties. It is not difficult to have a fine supply of summer and fall apples here, but I find it quite difficult to get a true winter-keeping apple grown here, so far as my trials have extended with them. Our nurserymen here say that fruit trees grown in Northern and Eastern nurseries will not succeed well here; whether or no this is correct, I am not prepared to say. If you are posted on this subject please enlighten us upon it and greatly oblige MANY SOUTHERNERS. *Byhalia, Miss.*

The northern summer and early autumn apples mostly do well at the South, but our best winter apples ripen so early as to become summer and autumn fruits there, and lose much of their high quality, dropping early from the tree. We are not aware that any northern sorts except the Rawle's Janet and Limbertwig, have proved good winter apples there. Southern varieties must be sought for this purpose, and we would recommend our correspondent to examine the list published in the new work on *Gardening for the South*, by WM. N. WHITE, of Athens, Georgia, which affords much valuable information on this and kindred subjects.

The pears known as the best at the north, nearly all succeed in the Southern States, and undergo less change in quality and time of ripening than apples. The following have proved valuable at the South: *For summer*—Madeleine, Bloodgood, Stevens' Genesee, Seckel, White Doyenne, and Belle Lucrative. *Autumn*—Beurre Bosc. Glout Morceau, Beurre d'Aremberg, Winter Nelis. *Winter*—Easter Beurre. The latter has been kept nearly till spring; and the Glout Morceau a month into winter. White Doyenne and Belle Lucrative, continue their ripening into early autumn, especially the former.

Among the cherries, the Dukes and Morelloes succeed best in the warmer portions of the Union. None does better than the *May Duke*—to which may be added the Early Richmond or Kentish, the English Morello, Plumstone Morello, Belle Magnifique, and Reine Hortense. Of the Heart cherries, the Elton, Black Heart, and Downer's Red, appear to be the best. They ripen about five or six weeks sooner than in the State of New-York.

Any of these sorts will do well if the trees taken from the north are of small size when removed. These soon suit themselves to the long heat of the sun's rays. If large trees are taken, the bark is apt to be injured by the hot sun.

## Sheep Shearing Festival at Middlebury, Vt.

MESSRS. EDITORS—Having seen a notice in the Ohio Farmer, from a gentleman in Jefferson county, that he would shear the Silesian Sheep for dollars and cents against any breed in the United States, I was induced to advertise through the Agricultural papers West, that I would shear thirty ewe lambs dropped last March, against an equal number of any one man's raising in the world, for quantity and quality, unwashed or cleansed, or for dollars and cents, according to live weight, every man keeping his sheep as well as he pleases. Now I propose, in compliance with what I have published, to hold this Sheep Shearing Festival at Middlebury, on the 17th and 18th days of June next, commencing at 10 o'clock in the morning of the 17th. The first day will be devoted to the shearing of sheep. The second day will be devoted to a general exhibition of horses; also, there will be purses offered for the fastest time made by trotting horses. Also, there will be an exhibition of ladies and gentlemen's horsemanship, to be held on the Fair ground near the village. Also, at the close, a Sheep Shearing Festival Ball, to be held at the Addison House, Middlebury.

Now, one and all are invited to attend, and have a good time. All papers will please confer the favor to give notice throughout the land, and oblige A. L. BINGHAM. *West Cornwall, Vt., April 7, 1856.*

## Remedy for Girdled Trees.

MESSRS. EDITORS—As it has been a good winter for mice to work at fruit trees, on account of the snow, I wish to make known a remedy. In March, 1855, as the snow was going off, I found four of my apple trees completely girdled by the mice nearly a foot from the ground. I took a shovel and made a mound of dirt around two of them. Last fall I dug down and found them well barked over. One of them bore several apples; both are doing well. The other two are both dead. They should be seen to before they are seasoned A. H. H. *Berlin, Mich.*

## How to Save Fruit Trees injured by Mice.

E. M. BRADLEY, Esq., of East Bloomfield, in a letter to the Rochester Democrat, says:

I noticed in your paper of to-day, an article copied from the Buffalo Express, relative to damage sustained by mice eating the bark from young fruit trees during the late severe winter; and stating that individuals have suffered from $800 to $1000 each from this cause alone. I write for the purpose of suggesting to all who may have suffered in this way, that if they will take the trouble to protect the injured part of the tree from the air, that in nine cases out of ten the tree will thrive and show but very little injury from the wound. A very economical and expeditious method of accomplishing this is to take a dish of grafting wax, kept sufficiently warm to spread easily, and apply to the wounded part with a common paint brush, and pressing on to this a small piece of white wrapping paper or cotton cloth, to keep the wax from running when the sun shines upon it. Pieces of tarred or waxed cloth tied tightly about the wounded part will effect the same end, but the former method is cheaper and more easily applied.

I have in this way saved many valuable trees that had been badly eaten, and any one not acquainted with the process would be surprised to see how many trees could be saved in this way in a single day. A single man will dress from two to four hundred trees in one day in the above manner, with his material conveniently prepared, and at a very trifling expense.

## Extracts from Correspondence.

SPLITTING BOULDERS.—First clean away around the stone you wish to split, that it may rest only on the under side. Then build a fire over the center of the stone from the earth on one side and to the earth on the other, about one foot in width, and keep it so confined by green sticks of wood or loose stones or sods, whichever is most convenient. Let the first fire burn entirely out. Then take your crowbar and take off the scales which will easily separate from the rock. Then build the second fire as before, and keep it well supplied with good dry wood, (a free but not a fierce wind the best time;) near evening the heat has, I think, the most powerful effect. When the fire is well a-going, you will to your astonishment hear a peculiar small noise in the rock, and then the fissure in the rock is commenced; the fire is to be continued until the rock is easily separated by a wedge or a bar. I broke a rock to pieces in this manner, with a few refuse rails and a small amount of maple wood, that made five pieces so large that it took two yoke of oxen to roll them from the center to the side of the road, and three stone-boat loads of smaller pieces. G. R. SMITH. *Greig, N. Y.*

OSAGE ORANGE SEED.—The seed of the Osage Orange, (Bois de arc, Maclura,) has become quite an article of traffic in some parts of the South-West. Separating the seed from the "oranges," is a tedious, irksome job, but the labor is much facilitated by *boiling*. Some traders refuse to purchase boiled seed, yet more or less of it has doubtless found its way to market. Having a wagon load or so of the balls lying under the trees in my yard, I will boil out and enclose some seed, that you may test their vitality, &c. Pottage a la Maclura being, I suspect, rather more expensive a luxury for Albanians than Osages.

I have no means of knowing how much boiled seed has been sent to market the past year; yet I thought it might be well to put seedsmen on their guard.

I believe the Maclura is *the* fence material for the prairies of the South-West, and, after experimenting for some years, intend to sow largely the coming season. Our chief trouble is from the gopher, (an animal resembling the mole,) which eats the roots of shrubbery, fruit trees, &c., to such an extent as to make it almost impossible to raise them. YUNESSEE. *Near Red River, Ark.*

THE CULTIVATOR IN GERMAN.—A subscriber in Ontagamee Co., Wis., suggests that there are a very large number of Germans at the west who are anxious to become acquainted with our system of agriculture, and would be much benefitted by an edition of *The Cultivator* in their own language. He says that from 150 to 200 copies would be taken by those in his own immediate neighborhood, at whose request he writes, and adds that if he could use their language himself, he would "agree to send them on by the thousand."

COLZA.—Last spring I received a small package of Colza seed from the Light-House Board—spring and fall Colza. I sowed the *spring*, with a hand drill, in rows 18 inches apart, on a piece of land about 30 feet by 50, and received about 8 quarts of seed. I offered Colza plants to my cattle from time to time during the grazing season. I thought they did *not* eat it as well as cabbage or turnip leaves. Being from home a while in autumn, the fall Colza did not get sown. I tell you about *my* Colza because I have not heard of any other being raised in this vicinity—indeed I have *heard* of none in Vermont, though I dare say there were others experimenting with it. B. F. S. *Barnet, Vt.*

EFFECTS OF THE WINTER.—Extract of a letter from Warren County, Ohio, 4 mo., 18th:—"Winter has at length left us. He staid long, and tightly did he hold his grasp. From the 25th of 12 mo. to about the 9th of this, snow was to be seen, and through 3d mo. was near 15 inches deep in the woods. The thermometers in this vicinity were said to range from 20° to 26° below zero on the 9th of 1st mo., and on the 10th at 19° to 24°. About two weeks later, from 19° to 27°, and on the 10th of 3d mo. at 6°. Wheat now promises well, and neat cattle also look much better than when the winter is wet and changeable. The rape which I sowed in the fall, was pretty much killed by a freeze about the first of this month, after the snow had melted from it. Apple trees do not appear to be injured, and some of the peach have escaped. Currants, raspberries, &c., appear to be injured in the stock, but the roots are safe. Budded peach trees are killed, unless where the bud was below the snow line."

PRODUCE OF ONE POTATO.—Mr. J. R. SMITH of Hawleyville, Ct., informs us that he raised 10 lbs. 6 ozs. from a single potato about the size of a hen's egg. He dug a hole about the size of a bushel basket, put in half a bushel sheep manure, and thoroughly mixed it with the soil taken out, and in this the potato was planted. It was of the kind known as Canada Red or Sand Lake—(known also as Western Red and Peach Blow.) In 1854 he raised of the same variety, 13½ bushels from half a bushel of seed.

SPLITING BOULDERS.—I have had considerable experience in spliting boulders or rocks, and I think the best plan is to dig around the stone of sufficient depth to be enabled to get nearly as low as the stone reaches. Then build your fire of dry wood in a line with the direction you want it to break, over across the stone. Let the fire burn down. Take your bar and see if there is not a crack which will soon open by the repeated blows of the bar. If one fire does not succeed try another until it will. As a general thing the first fire will do. The quicker the fire the better. The theory is to heat it very hot and sudden, while each side is cold. I have thrown on water, but find it of no benefit. AN OLD SUBSCRIBER. *Stephentown, N. Y.*

THE ANNUAL REGISTER.—A correspondent of the *Granite Farmer*, seems much pleased with your "Register of Rural Affairs," and I think he may well be. Let me give you an item of my own experience. A short time since I wanted some directions relating to our gardening interests, and was advised to send to New-York for a certain book, which was to fully enlighten me on the subject. I accordingly sent $1.50, and got the book. I read it and re-read it, but still I was in the dark. At length your Register for 1856, came to hand, and, besides a large amount of other valuable information, I found in it the very directions I had sought for in my book. I had paid $1.50 for the desired information and found it not; but when I paid but one-sixth part of that amount for your little Annual, I got what I wanted. M. F. *Root, Mont. Co.*

COBS FOR FUEL.—Are people generally aware of the high value of cobs as fuel? I think not. I have just learned by experience that cobs, when placed in an ordinary stove, are capable of giving out the most intense heat. I think they may be used in this way to great advantage, instead of being thrown out as worthless. If any one has a doubt with regard to this, let him put in his stove a peck or so of cobs, with two or three sticks of wood—green wood if you please, and learn the result. He will be surprised. S. PARSONS. *Franklin, N. Y.*

WIND MILLS.—Mr. Nutting's new wind power, described by him in your papers, resembles in some respects, the one I invented and put in successful operation nine years ago, as numbers can testify who saw it in operation, cutting wood with a crosscut saw. It was constructed with a central upright shaft, to which were fastened near the upper end, in pairs, horizontal arms, 16 feet long. Near the outer ends of these, board sails are attached, with hinges so that when the sails on one side are broadside to the wind, those on the opposste are always edge to the wind. You can use 4, 6, or 8 pair of arms as you like and sails to match. JOHN PORTER. P. S. Since making the above I have made some important improvements which I shall make public at some other time. *Fredonia, N. Y.*

PROTECTING SEED CORN.—Your correspondent, H. H B., seems to differ with me in regard to crows, "pigs and chickens," without so much as giving my method a fair trial. I hope it will not deter others from doing so, for sure New-York pigs and chickens must be very unlike those on "Cream Hill," if they do not feel inclined to take matters too easy to *root* or *scratch*, after eating a full supply. It must be he has not "the improved breeds." As for his crows, they must be different, *sartin!* Won't die by eating strychnia! I guess he has fed them on tarred corn so much that it does not take effect. Now, friend H. H. B., before you denounce my advice *too* hard, just try it, and if your pigs do not lay down and sleep and grow fat, your hens go to laying eggs, and your crows "kick the bucket," then, until I have killed another forty crows, I will not subscribe myself CREAM HILL. *Rutland, Vt.*

PIGS IN BARN-YARDS.—In recommendations about barns, it has been proposed by writers in the Co. Gent., to let the pigs have free access to the manure. Is it not injurious to them? Pigs will devour much of the horse manure and will pick up hen manure as greedily as corn, and from our knowledge hereaway, with deleterious effect. This is the testimony of our best pork raisers, and is of some moment. R. H. *Warren Co., O.*

COLZA OR RAPE.—I received from the Light House Board, samples of Colza or rape and sowed some in the spring broadcast, and found it to yield much excellent forage in the fall, but no sign of seed. I likewise sowed some in the fall, too late I fear. How it will do I cannot say, but the grasshoppers seemed to think it of great value, so that when frost came there was but a small portion left standing. R. H. *Warren Co., O.*

A GOOD SUGGESTION.—A correspondent, after alluding to the various statements of the products of dairies in different sections of the country which have been published in this paper during the last few months, says—"I would recommend to all dairymen to keep a correct account with their dairies for their own and other's benefit. It would lead to more care and greater exertion, and to a more spirited and profitable competition."

THE SPRING ON LONG ISLAND.—Extract of a letter from Suffolk Co., dated May 7th: "The spring is very backward; none of the trees are in bloom yet, but from appearances we shall have a great abundance of cherries. Our strawberry vines never looked better. The winter grain, I find, much to my surprise, greatly damaged by the severity of the winter. In many places it is almost entirely killed. Oats are up and looking finely; also grass is growing finely, so that we may expect an abundant hay crop this season."

MINNESOTA.—Extract of a letter from St. Pauls, dated May 1—"We have lost a great many of our fruit trees during the past winter. I will endeavor to give you the names of such as have stood the winter well. There are some pears and cherries, a *few* plums, and a great many apples left. I now see, what I had before doubted, that we *can* raise fruit here."

MR. FENN'S WIND POWER.—The cheap Wind Power, of which I wrote you a short time since, (see Co. Gent. vol. 7, p. 218,) has been tested as to its self-regulating properties. It was set to work, (raising water,) on the day that the tornado swept over Alliance, Alleghany, Philadelphia and other places, doing so much damage. We were in the edge of the tornado; the wind blew violently for a short time, and our new untried machine had a fine opportunity to show how it would act in a gale. The result was very gratifying.

We are now able to state that a sudden, furious blast, which would tear a common wind-mill to pieces, will endanger no part of this, when rightly constructed. Its motion will not be in proportion to the force of the wind, and it is safest when left to take care of itself. The trial was just such as we could have desired, and has settled the point that the Cheap New Wind Power has perfect ability to regulate its own motions in a furious wind. BENJAMIN FENN. *Hartford, Trumbull Co., Ohio, April* 29, 1856.

## Notices of New Books.

**The Flower Garden; or Breck's Book of Flowers,** in which are described all the various Herbaceous Perennials, Annuals, Shrubbery Plants, and Evergreen Trees, desirable for Ornamental purposes, with directions for their Cultivation. By JOSEPH BRECK. New Edition, Revised and Enlarged. Boston: John P. Jewett & Co.

Of the contents of this very excellent work, the title-page above quoted will convey a very good idea. Mr. BRECK is well qualified for the task he has undertaken—his treatise having enjoyed general approval as the best fitted for this latitude, since its first appearance five or six years ago,—and being now enlarged by the addition of an appendix on Parlor and Bedding-out plants, and revised throughout to render it more perfect, so far as additional experience could be of avail to this end. Its typographical execution is also improved, so that it forms a handsome as well as valuable book. There is no better or more complete guide to the flower garden to be had, of its price and kind.

**GARDENING FOR THE SOUTH; by WM. N. WHITE,** of Athens, Georgia. New-York: Saxton & Co.

This is a valuable treatise. Its author has been long known through various journals, by his useful and reliable communications on Southern horticulture. He has now embodied his experience, together with that of several other skilful and distinguished southern cultivators, in the book before us, which is a duodecimo of 400 pages. A considerable portion of it is however compiled and condensed from standard European and American authors, for which he gives only general credit. We are much pleased with the judgment and good sense he has evinced in most instances, in treating the various branches of his subject. He has furnished analyses of the more important crops, "both to gratify a rational curiosity, and to assist those who wish to experiment in special manures—which," he judiciously remarks, "should be very cautiously ventured upon in the present state of our knowledge."

The subject of the culture of fruit, which occupies about 100 pages, we regard as much the most interesting and valuable part of the volume, and it cannot fail to prove of eminent utility to all fruit raisers in the southern states, pointing out, as it does, the results of experiments on our northern varieties, and naming those that fail, as well as the successful kinds. It also contains descriptions of many sorts of southern origin. On the whole, we regard this book as an important addition to our list of American works on Horticulture.

SUGAR CONSUMPTION, &C.—By means of accurate official and statistical returns it is found the consumption of sugar varies very much in different countries. In France, for example, it appears from the official returns of home manufactures and foreign imports that the consumption of sugar by each individual in France, taking the population at 36,000,000, is only 9 lbs., while according to the returns relating to the home consumption in the United Kingdom of Great Britain and Ireland, it is 30 lbs. per head, taking the population at 28,000,000. After making allowance for certain classes of the population and districts of country where but little is used, it is thought that the average consumption with families above a state of poverty will amount to 40 lbs. per head. This is by far the largest consumption of sugar in any European country. The large consumption of wine and oil will in part explain the small consumption of sugar in France. It is also greatly restricted by the high duties levied on all home, colonial and foreign sugars, which are much higher—about 30 per cent higher—than in Great Britain.

## Inquiries and Answers.

COAL ASHES, PEAR ON APPLE STOCKS, &c.—I would like to make the inquiry, whether coal ashes are of any value as a manure to apply to garden soil? If they are, what crops will they benefit most?—2d, How will it answer to graft the pear on young apple stocks? and 3d, Which is the best kind of potato to plant on Long Island? W. *Ravenswood, L. I.* [Coal ashes are not found to be of much value generally as a fertilizer. Unlike wood ashes, they contain but little potash. They consist mostly of earthy materials, and some sulphate of lime or gypsum. The latter appears to be the chief ingredient of value, producing in some instances, where gypsum is needed, decided results. The pear will not do well on apple stocks—but few grafts taking, or if they take they do not grow more than a year or two; and not forming a strong union, they are easily broken off. There are, however, a few pears that sometimes grow well for a time on the apple, particularly the Winkfield, Seckel, Summer Bonchretien, &c. Will some Long Island farmer answer the 3d query?]

PLANTING GRAPE SEED.—Is it essential in planting grape seeds, in the spring, to scald them? If so, how much scalding will they bear? A SUBSCRIBER. [Grape seeds, kept moist from the first, like cherry stones, in moist sand or soil, and subjected to the same treatment as cherry or apple seed, will grow without scalding. If allowed to become thoroughly dry, they may need alternate scalding and freezing, a few times. The water may be nearly boiling, provided the quantity is small, so that it will cool in a few seconds.]

CLOVER.—How many kinds of red clover are there? A. H. H. [There are two principal varieties of the Red Clover, the large and the small—although there is a tendency at every seeding to vary more or less, and imperceptibly, from these.]

HEAVES IN HORSES.—Allow me to inquire through the numerous subscribers of the "Country Gentleman," if that "plaguey malady," the heaves in horses, especially in its early stages, and where but slightly affected, can be cured? Also the best method of feeding and treating, and what can be done to alleviate the disease, if it cannot be cured. I would be thankful for an early reply. E. R. BROWN. *Delaware Co., N. Y.* [We shall be glad to hear from any one who can answer these inquiries. In the mean time, we would refer our correspondent to our *Annual Register* for 1855, p. 98, where he will find just the information he requires.]

BITTER ROT IN APPLES.—With me the Vandevere pippin has proved of late years totally worthless, the fruit being so affected with the bitter rot as not to leave a hundredth part fit to gather. It is the case here as well as in the orchard I left in Indiana. Is the bitter rot not the work of an insect? R. HATTON. *Waynesville, Ohio.* [The bitter rot is not caused by an insect—some apples are more liable than others—it appears to be increased by rich, moist soils. The "Vandevere pippin" we *do not regard as better than* second rate, and we should not greatly regret its loss.]

LIME-KILN ASHES.—*J. F., Brooklyn, O.* The ashes from lime-kilns mixed with the refuse lime, would be a good application to almost any soil, but their exact value per bushel it would be a difficult matter to ascertain.

SORREL.—My farm is uncommonly natural to the growth of sorrel. Now for some process to extricate from, or neutralize in the soil this production of acid. I have long waited for the old saying to come to pass, that sorrel would finally turn to white clover, but beginning to think it will not take place in my day, I would rather drive it from my premises and supply its place with red clover and timothy. G. R. SMITH. *Greig, Lewis Co., N. Y.* [Lime has proved very efficacious in extirpating sorrel, in Virginia, according to Ruffin's Essay on Calcareous Manures; but it has failed to produce a like result in other places. We would recommend the application of lime or ashes in connection with good barn-yard manure, and would especially urge good, clean cultivation of the soil.

MAKING CURRANT WINE.—I am induced to address you relative to the manner of cultivating the currant, for the purposes of wine. Will you please state your views on this subject in your next paper. The best mode of raising the currant—the best kind of soil, and the probabilities of finding a market for the wine when made, are all matters upon which I would desire your views. A SUBSCRIBER. [Will our correspondent Dr. E. W. SYLVESTER, of Lyons, N. Y., who has had much practical experience in currant wine making, please furnish us an answer.]

MILLET.—After many years' experience in the culture of Millet, we have come to the conclusion that the first week in June, with us, is the best time to sow it for hay or seed. If sown much sooner the weeds will get the start of it, as it will not grow but little till the weather gets warm. W. DENNIS.

WORMS IN DRIED FRUIT.—I have attempted for several seasons, to keep a quantity of dried apples, peaches and other fruits, for summer use, but in every case have found them affected, and in come cases ruined by worms, and this in spite of all the precautions I have taken to guard against this annoyance. If any of your readers can give the information whereby this evil can be avoided in future, they will greatly oblige W. C. HEALY. *Elk Co., Pa.*

MILK HOUSE.—Can you or any of your readers give me a good plan for a dairy or milk house? I have no spring but must supply it from a pump. I can only have two feet fall for the water to run off. How can I have it cool in summer and safe from frost in winter? Should it be built of wood or bricks? Should it be hollow and filled in with saw-dust? Can some good, practical Orange county dairyman help me? J. B. S. *Pittsburg, Pa.*

POTATOES.—Will potatoes planted on the same soil perpetually degenerate unless the seed is changed? An answer will much oblige. J. F.

HORSE DISTEMPER, &c.—Allow me, if you please, to inquire through your Country Gentleman, for a simple, effectual remedy, for cough in horses and for horse-distemper. I have a valuable one who had the distemper last spring, and has had a hacking cough since. E. R. B *Davenport, N. Y.*

SWEET POTATOES.—In reply to C., of Sandy Spring, Md., in regard to sweet potatoes, I would recommend him to forward 25 cents to AARON H. VESTAL, Cambridge City, Wayne Co., Indiana, for his work on the raising and keeping of Sweet Potatoes. I ate some in January at the residence of Gov. Wright, as fine as any I ever tasted, kept by Mr. Vestal's plan, which is simple, cheap, and will entirely secure against loss. He and others have kept them for two years. The whole plan is sketched in his book and deserves to be extensively known. HENRY C. VAIL.

SEEDING.—I have a piece of low land, that I wish to seed down, and I wish to know if it would do to seed with buckwheat, as it will be drier by that time so that I could get it in better condition for a meadow. If you, or some of your correspondents, can inform me you will much oblige a new subscriber. G. H. *Oswego.*

SHEEP PULLING WOOL OF LAMBS.—While I am writing, I have one inquiry that I would wish to make. Some weeks ago I noticed that some of my lambs and one yearling, had begun to lose their wool about the hind legs and on the fore shoulder. This I could not account for until within a few days past, not seeing any wool in the yard where they run. On watching, I noticed the old sheep pulling the wool and eating it as they would hay. They seem to be in a healthy

condition, and are in very good order. Now what is the cause of it? The lambs I have had to put by themselves. I have kept my sheep on oat straw, and for grains, corn and oats mixed. Up to the time I speak of, gave salt once in a while, and plenty of hard frozen apples, which they were quite fond of. Since then I have stopt feeding apples, and given salt and ashes and fine browse. Still they kept on just as bad until I took the lambs away. It is something myself or neighbors have not known before. E D. M. *Burdett, N. Y.*

INDIAN MILLET OR DOOHRA CORN—OREGON PEA.—If your correspondent, "P. W.,"will send me his address to Applebackville, Bucks Co., Pa., with a prepaid envelope, I will send him some of the seed of this plant. It has been grown here for some time, perhaps twenty years. It ripens its seed with us nearly every year—makes a large yield of stalks, of which cattle are very fond, and yields considerable seed, good for poultry, and if chopped makes good feed for stock. I will also send some of the Oregon Pea to your correspondent A. B., on the same terms. WILSON DENNIS.

CAST-IRON CHIMNEY CAPS.—A correspondent inquires if cast-iron chimney caps will attract lightning. *They will not*—because they form no continuous conducting current. They will not have any more influence than a metallic roof, (which has none at all,) and not nearly so much as the soot inside a chimney, which is a good conductor, and extending all the way down, is a prominent reason why chimneys are so often struck by lightning. A good lightning rod, high and sharp above, and deep in the earth below, will protect from danger in all cases.

COUVE TRONCHUDA.—I have received from the patent Office, a paper of seed labelled "Couve Tronchuda," and shall be glad if you can enlighten me as to its use and cultivation. TYRO. [The Patent Office Report for 1854, describes it as a variety of "cabbage from Portugal, which does not head, but produces very large and tender leaf stalks. When cooked like sea-kale, it is esteemed by many as a delicious vegetable. Cultivation same as cabbage.]

WORK ON DRAINING.—Will you please state through the columns of the Country Gentleman, whether there is published a good reliable work on Drainage, and if so whose it is and where it can be obtained? S. ["Munn's Practical Land Drainer," is we believe, the only work on the subject published in this country. It can be had at this office—price 50 cents.]

MAKING HARD SOAP.—Allow me, if you please, to inquire through the Country Gentleman, for a good and cheap receipt for making hard soap, for home use. J. C. G. *Johnson Co., Iowa.*

TREES INJURED BY MICE.—The mice have made sad havoc with nurseries and young orchards in this whole region as far as I can hear. Can you or any of your readers inform me of any preventive for the future? Will smearing the bodies with coal tar have the desired effect? J. H. WRIGHT. *New-Haven, N. Y.*

ROOT'S TWO-HORSE CULTIVATOR.—Can you inform me through the Cultivator, where F. P. Root's two-horse cultivator can be purchased. If you can you will confer a favor on several persons in this vicinity. We find that the Cultivators made after the old crotch drag fashion do not work as well as we would like them to, in most of our lands in this vicinity, which consist principally of black loam and clay knolls. Most of us threw away our cultivators as useless; but I chanced to see an implement manufactured by F. P. Root, which is just the thing for us. C. B. BOOTH. *Storrington, C. W.* [We believe this cultivator is manufactured in Monroe county, and it can probably be procured at the agricultural warehouses in Rochester.]

WARTS ON HORSES.—Can some one inform me through the medium of your valuable paper, how to cure warts on horses? Those on my horse are about the size of a dollar, and perfectly level with the skin, and not the least hair has grown on them for the last two or three years. N. B. L. *Nassau, N. Y.* [For remedy for warts on horses, see Co. Gent., vol. 6, pages 285 and 333, or Cult. 1855, p. 372.]

WAKEFIELD'S CORN PLANTER.—In answer to the inquiries of your correspondent S. G. F., in your paper of May 1st, I would state that Wakefield's Corn Planter can be procured of Bigelow & Bean of Framingham, Mass., price $3.00. It is designed for planting corn, broom corn seeds, beans, and similar seeds, and is carried and used as a cane or walking stick; is adapted for planting in rocky and uneven ground, and in all kinds of soil. Is easily adjusted to plant at any desired depth, and to drop any required number of seeds. The method by which the seed is planted with this planter is new, and is believed possesses advantages over all others, not only in facility of use, but in hastening germination. The seed is forced by pressure obliquely from the surface of the ground to the required depth, thus insuring the immediate absorption of moisture, by bringing it into perfect and hard contact with the soil under and around it, while the earth falling loosely over, cannot obstruct the coming up and growth of the blade. The planter is simple in construction and not liable to get out of repair. It was used by some of the best farmers in this vicinity the last season, and gave universal satisfaction, and they recommend it to farmers in preference to any other corn planter in use. G. *Ashland, Mass.*

"Wakefield's Corn Planter," can be procured at retail for $5, in this place. DUDLEY SEWARD. *Akron, O.*

BUTTER.—You can tell "An Old Subscriber," that my wife says the reason the butter does not come, is because the milk and cream get *too sour*. H. L. B. *Fayette, Mo.*

SEED CORN.—I wish to make the following inquiry through your excellent paper, "The Cultivator." Is it profitable to roll corn in plaster before planting, and does it prevent its rotting? RUSHTON SMITH. *Factoryville, N. Y.*

TRIMMING OSAGE ORANGE HEDGES.—Among the advertisements of farming implements I have never seen any notice of a machine for trimming the Osage Orange hedge. Why cannot such a machine with cutters similar to the *reapers*, be constructed? I give this as a hint to the ingenious. PELHAM.

MEXICAN GUANO.—A correspondent of *The Homestead*, gives his experience with Mexican guano. He says:—"My brother and myself tried it on oats, grass, rye, turnips and potatoes; we put on oats from 300 to 600 lbs. to the acre, and upon grass, rye and turnips 300 lbs.; to potatoes we put a liberal handful in a hill, but I could see no benefit arising from the application. Some of our neighbors used it with the same effect. If nobody can truly say they have been benefited by the use of it I shall conclude it to be a humbug of home manufacture." This was probably a lot of guano similar to that which Mr. Shelton said the farmers would not buy "from its want of smell," and to which he was enabled, through the scientific attainments of Prof. Mapes, to impart the odor necessary to make it acceptable to those who rely upon the "smell" alone.

SUGAR MAKING IN IRELAND.—The manufactory of beet root sugar at Mountmellick in Ireland, was at full work during the past winter, employing above 120 hands in the various processes. The article produced is said to be very good. Farmers get £1 (about $5) per ton for the roots. With this they can buy about 50 lbs. of good sugar, which would be about half of the whole amount got from a ton of roots, at the rate of 5 lbs. of sugar to 100 lbs. of roots, which is, we believe, a fair average yield.

☞ The *Pennsylvania State Fair* this year, is to be held at Pittsburgh, commencing Sept. 30.

# Notes for the Month.

☞ All the preliminaries having been satisfactorily arranged, the question is settled that the New-York State Fair for this year will be held at Watertown, opening on the 30th of September. The farmers of Jefferson, Lewis, St. Lawrence, &c., will, we trust, be prepared to make as favorable an impression as did those of the southern counties at Elmira last autumn. If they will do this, which they can easily, they will satisfy the public, and have good cause for self-gratulation. We shall look for a much better exhibition of Dairy Cows and Butter and Cheese, than has ever before been made in the state.

☞ The Trustees of the New-York State Ag. College held a meeting in this city last week, and we are glad to learn that we may now reasonably anticipate that the Institution will soon be organized under circumstances every way favorable to its usefulness and permanence.

HORSE SHOW IN WAYNE COUNTY.—The Wayne Co. Ag. Society are to hold an exhibition of Horses on their show grounds in Lyons, on the 5th and 6th of June next. The premium list amounts to $600, and the competition is open to the whole state. The proceedings are to close with "a grand agricultural soiree" at Floral Hall on the evening of the 6th. For premium lists and further information, address the President, D. W. C. VAN SLYCK, Esq., Lyons, or S. LEWIS, Sec'y, at same place.

GREAT SALE OF IMPROVED STOCK.—It will be seen by an advertisement in this paper (page 325) that Col. L. G. MORRIS of Mount Fordham, has determined to give up his breeding establishment, and that his entire herds of Short-Horn and Devon cattle, South Down Sheep, and Berkshire and Essex Swine, are to be sold at auction on the 24th and 25th of June. We confess that we make this announcement with regret. The establishment at Mount Fordham, had become a national institution, although founded by the judgment and munificence of an individual. We had looked upon it as, in a degree, a permanent institution, to which our breeders could at all times resort for supplies; but the Colonel has otherwise ordered, and his beautiful herds are to be sold, and dispersed throughout the land. The sale will be by far the most important, both in the number and value of the animals, that has ever occurred in this country, and will doubtless attract purchasers from all parts of the Union and the British Provinces. Having determined to give up the business because he finds it impracticable to continue it with satisfaction on a farm twelve miles distant from his residence, the sale will be positive and without reserve. The Catalogue will be ready about the 25th of this month, with full particulars.

THE PEACH CROP FOR 1856.—At Macedon, in Western New-York, and in many other portions of the western counties, the thermometer sunk 12° below zero, without destroying the fruit buds of the peach. The long continued and uniformly cold weather proved much more favorable than sudden alternations have done in other winters, by swelling or filling the buds with moisture.

A recent letter from DAVID THOMAS, of Union Springs, says, "Last winter I examined the peach buds and thought *one tenth* might be damaged. A month later, I again examined, and found nearly all safe. I tried again, and I thought *one half* were killed. I was not satisfied with this result, and when the weather became warmer, I resolved to investigate the mystery. I therefore went from tree to tree, and soon found all out. My puzzle was owing to one fact, which I had not known before: *Some varieties are much hardier than others.* On some, not a bud was injured —on others one half—but still enough left for a full crop."

A similar examination in some other places has confirmed this fact. At Macedon, the Serrate Early York, Early Tillotson, Fay's Early Ann, and George the Fourth, have lost from one third to one half their buds, while there is a loss of scarcely one in twenty on trees of Crawford's Early, which is perhaps our hardiest variety.

There are however enough fruit buds remaining uninjured on all these, for a most abundant crop of peaches, if no disaster befals them before maturity.

SALE OF SHORT-HORNS IN EEGLAND.—The celebrated Fausley herd of Short-Horns, owned and mostly bred by Sir Charles Knightley, was sold at auction on the 3d of April. Seventy-seven head were sold—48 cows, heifers and heifer calves, and 29 bulls and bull calves. The females averaged nearly $415 each—the average of the males a little over $376 each—average of the whole 77 head, a fraction over $400. The prices were extraordinary the average prices never having been equalled except in the cases of the herds of Charles and Robert Collings and Lord Ducie. The papers state that "several of the best animals were bought for America;" and we notice by the list of purchasers, that Mr. THORNE of Duchess County, bought "Amaranth," a seven-year-old red cow for $600, and a yearling heifer from Amaranth, for $750 —also "Blouzelind," a three-year-old heifer, for $400, and "Elgitha," a two-year-old heifer, for $500.

SPRING CATTLE SHOW OF THE ROYAL DUBLIN SOCIETY.—The *Irish Farmer's Gazette* of April 19, fills nearly 15 of its large pages with accounts of this exhibition, which was held at Dublin the previous week. It gives portraits of four of the prize Short-Horns, and among them that of the Short-Horn yearling heifer "*Lady Barryscourt*," bred by John Christy of Fort Union, to which was awarded the first prize in her class, and also the Townley Challenge Cup, of the value of $250. At a public sale of Mr. Christy's stock, the same week, this heifer was bought by Messrs. SMOOK and MARSHALL of Kentucky, and the Gazette expresses its regret that this fine animal should have been permitted to go out of the kingdom. These gentlemen also purchased at the same sale, three other "first-class animals—viz: Jenny Deans, Violet, and the bull Grisette." Mr. Christy appears to be one of the most successful of the Irish breeders, the Challenge Cup above alluded to having been awarded to him three years in succession on three different animals.

DEVON BULL.—Capt. JOSEPH HILTON, of New-Scotland, has just purchased the beautiful Devon bull "Empire," which attracted so much attention while on exhibition at the Fair of the Albany County Ag. Society, last fall. "Empire," now four years old, was bred by the Messrs. HURLBUT of Winchester, Conn., and is a valuable addition to the stock of our county. He was sired by the imported bull Albert—[see English Herd Book, No. 2,]—dam Eliza, by Baltimore—grand dam, Fancy third—g. g. dam, Fancy second—g. g. g. dam, Fancy first—and Fancy first, from an imported cow.

SHORT-HORN BULL ECHO OF OXFORD.—We learn that Mr. N. J. BECAR has sold his superior prize bull, "Echo of Oxford," 12,821, (E. H. B.) to Mr. E. MARKS of Camillus, Onondaga Co., whose neighbors are fortunate in having the privilege to use so valuable an animal. Pedigree of "Echo of Oxford," 12,821, E. H. B.—white, calved Jan. 25, 1854—bred by N. J. Becar—got by first prize bull Romeo, 13,619, E. H. B.—dam, first prize cow Oxford 13, by 3d Duke of York, 10,166—g. d., Oxford 5, by Duke of Northumberland, 1,940—g. g. d., Oxford 2d, by Short Tail, 2,621—g. g. g. d., Machem Cow by Machem, 2,281—g. g. g. g. d., by Young Wynard, 2,259. Oxford 13 has taken the

first prize at N. Y. State Fair, and Romeo has taken the first prize at Fair of American Institute, the N. Y. State Fair, and at the National Fair at Boston.

WHEAT TURNING TO CHESS.—I see you offer $50 reward to any one who will will "produce occular demonstration that wheat will produce chess." I shall accept your offer in order to have that point settled. Is a spur of chess on a wheat head proof enough? H. A. P. *Allen's Hill, N. Y.* [No, sir. It is no proof of transmutation. We have seen many such heads; and if you have one which thus exhibits a spur of chess apparently growing in a head of wheat, you can convince yourself in two minutes that the chess was not produced by the wheat. All you have to do is carefully to bend down the chaff below where the chess makes its appearance, when you can trace the stem of chess to its *end*, showing that it is only held in the wheat head by pressure. It was entangled there during its growth, and thus became separated from its parent chess plant.

CURING CORN-FODDER.—The inquiry is over and over again repeated, how shall we cure corn-fodder without heating or moulding? In answer to the question of W. J. PETTEE, the writer can state that he has raised corn-fodder in drills, (the best, cheapest, and cleanest way,) for the past ten years, and has tried various ways of curing. Beginners are often deceived in one point. *They think the fodder perfectly dry when it is not.* Fodder sown early, so as to be cut before autumn, may have two or three weeks of hot weather for drying it; the leaves may be excessively crisp, but the stalks will be juicy inside; and this water or juice is sufficient to spoil any stack of stalks, when they settle compactly together in a large mass. We have often tried placing the stalks in large shocks in the field, and leaving them there till wanted in winter. This is safe, but is not the best way. All the outer stalks become weather-beaten, dry, and comparatively valueless—but it is much better than to let them spoil in stacks. If the shocks could be made quite large, and capped with rye straw, a decided improvement would doubtless be made. The best way would be to use the lofts over cattle sheds, by making the floor of the loft of poles placed several inches apart, and then depositing the stalks nearly vertically on these poles, in one thickness, or as closely together as they could be placed. The ventilation would be ample, and green stalks, or those cut late in autumn, would be safely and perfectly cured in this way. Long and cheap sheds, made for this purpose solely, would no doubt be profitable structures.

Next to this, the best way is to build small and numerous stacks, only large enough for single circular layers of bundles of fodder, placed with the tops to the center, and built up round an empty barrel (which is drawn up by a cross-handle as the stack progresses,) thus leaving a hole in the center for a chimney. If the stalks are *salted*, and are placed sloping upwards towards the chimney hole, no injurious heating will take place. There must, of course, be a thin straw cap placed over this hole to keep out heavy rains. The diameter of such stacks would be six or eight feet.

All this may be regarded as troublesome; but it is worth some trouble to find a good way to secure a kind of food, better than hay for cows *when well cured*, and yielding three or four times as much per acre, with very little labor in cultivation.

PROTECTING CORN FROM CROWS.—Our experience accords exactly with that of "H. H. B." Nothing has ever yet proved equal to tarring the seed. A pint of tar will varnish beautifully a half bushel of seed, if the latter is first made *hot* by pouring on hot water for a few seconds, and drained off, and the tar then added, and the whole stirred rapidly.

RHODE-ISLAND STATE AG. SOCIETY.—The officers of this Society for this year are—President, Elisha Dyer, Providence. First Vice-President, Caleb Congdon, Cranston. Second Vice-President, Elisha R. Potter, Kingston. Third Vice-President, Oliver Angell, Providence. Secretary and Treasurer, William R. Staples, Providence. Audit and Finance Committee, John J. Stimson, Providence, Henry W. Lothrop, Providence, William Viall, Providence—together with a Standing Committee of thirty members.

WHEAT TURNING TO CHESS.—Mr. D. C. BROWN, "a wealthy and respectable farmer of Fairfield, Iowa," calls upon us, through the *Iowa Farmer*, to "demonstrate that wheat will *not* change to cheat or chess." He might, with equal propriety, ask us to demonstrate that pigs will not change to sheep. The transmutation would be no more unnatural in the one case than the other. The Creator, with a wisdom beyond our comprehension, has impressed upon all his works a system of perfect order, from which the most minute can no more vary than the most stupendous. The same Infinite Wisdom which created and directs the revolutions of the planets, commanded that every plant bearing seed, should bring forth "fruit after its kind." No variation from this command has ever been proved. In every clime and in every age—no matter how long the seed has been kept, or how far it has been removed—(if its vitality has been preserved)—it has brought forth seed after its kind, whether it be wheat, chess, or some other kind. We think, therefore, that we may safely place our reliance for proof of our position, that wheat will not turn to chess, upon this unalterable law of the God of Nature, guaranteed as it is by the fiat of the Almighty and the unvarying course of nature from the time the command was first issued, "let the earth bring forth grass and herb yielding seed," to the present day. But this is not all. We have a more *practical* demonstration of the truth of our position, in the fact that chess can be as *entirely eradicated from a farm*, as Canada thistles or any other weed. This could not be true, if wheat produced chess. We might refer to many instances where this has been done; but one is sufficient, and we will only cite the case of our friend, Mr. JOHN JOHNSTON of Seneca county, an extensive wheat grower. Twenty years ago, he believed, as did most of the wheat-growers around him, that it was impossible to raise wheat without more or less chess with it, because he supposed the wheat produced the chess. On reading the discussion which took place at that time in our old Genesee Farmer, he was led to test the question for himself. He says—"This controversy was entirely the cause of my finding out that wheat would not turn to chess. I picked five bushels of wheat by hand, sowed it on a patch that had been in potatoes two years in succession, and had no doubt but that I should get some chess, but I could not find even one stalk. Then, and not till then, did I believe that wheat could be raised without chess." Like a sensible and wise man, he lost no time in eradicating the chess plant from his farm, and having been careful from that time forward, that no chess was sowed with his wheat, it has ceased to grow on his farm, and he has thus demonstrated *practically* and *profitably*, that wheat will not turn to chess. What he has done, Mr. BROWN of Iowa, or Mr. ANDERSON of Michigan, or any other farmer, may do, if he will. Will not these gentlemen follow the example set them by Mr. JOHNSTON and multitudes of others, and thus convince themselves that wheat cannot be made to produce chess, and then come forward and help us eradicate this pernicious error from the minds of those who still cling to it? Will you do it, gentlemen, or will you admit that you cannot do what other farmers have done?

STATE FAIRS.—The *Illinois* State Fair for this year, is to be held at Alton, commencing on the 30th of Sept. and continuing through the week. In *New-Jersey*, the State Fair is to be held at Newark, Sept. 10, 11, and 12.

FOOD OF ANIMALS.—Messrs. SAXTON & Co., New-York, have just issued a new edition of Dr. Thomson's Experimental Researches on the Food of Animals, and the Fattening of Cattle,—a work which every grazier should own. By the way, we invite all our friends, when they visit New-York, to give these Agricultural Publishers a call at their new establishment, 140 Fulton street, where they will find all the most valuable works on rural subjects, both domestic and foreign.

GAS LIME.—A correspondent of the Mark-Lane Express, cautions farmers to avoid the use of the refuse lime from gas-works, expressing his belief, from experience, that "it will make fruitful land barren." On the other hand, it would appear from a communication recently published in this paper, that at New-Haven, Ct., gas-lime sells a cent per bushel higher than common lime for agricultural purposes. If any of our readers have used it, we should be glad to hear the results of their experience.

ONTARIO CO. AG. SOCIETY.—We have received the List of Premiums of this Society for the present year. The pamphlet, besides the list of premiums, embraces the constitution, officers and life members, of which there are 307, made so by the payment of $10 each, together with a report of a committee appointed to devise plans for suitable buildings to be erected on the society's show grounds. We should be glad to publish this report at length, for the benefit of other societies, if the Secretary will forward us the engravings.

PREVENTING VINES FROM BLEEDING.—The remedy of hard soap, applied to recently cut vines, to prevent the flow of sap, is quoted from the New-England Farmer. What is the occasion for this labor, when "bleeding" never injures vines? Some good cultivators, who have had ample experience, think that bleeding is a positive benefit.

DUCHESS ANGOULEME PEAR.—The beautiful portrait of this magnificent pear reminds us of the opposite success its culture has met with. Some of the western pomological bodies have pronounced it *worthless*. A large orchardist in western New-York has set out several thousand trees of the Virgalieu or White Doyenné, and a considerable number of the Angouleme. They were both eight years from the bud last season. Both bore, and being a season unusually favoring the cracking of the fruit, the Virgalieus were nearly all ruined in this way. The Angoulemes bore well, some a bushel each, and all averaged over a half-bushel. They all sold in New-York city for *thirteen dollars per barrel*. The owner has since rebudded several hundred of his Virgalieus to Angoulemes!

SAVING MICE-EATEN TREES.—The remedy of grafting-wax will apply to such trees as are not eaten wholly round, or to such as have a film of inner bark remaining. In the latter instance especially, it is of great importance to prevent drying up. But where the girdling of the entire bark is complete, and the wood wholly bare, all round,* the remedy described a few weeks since in this journal must be adopted.

JACKSON APPLE.—We are indebted to our friend WILSON DENNIS of Bucks county, Pa., for scions of this seedling apple, which he informs us is esteemed as "very good," in Bucks Co., being in season from Jan. to June.

NEW-YORK STATE FAIR.—The Premium List for the Watertown Fair has been issued in pamphlet form, and may be had on application to the Secretary here—of H. Cooper & Co., Watertown, and at most Ag. Warehouses in the State. Liberal Premiums are offered for Horses, Cattle and Sheep, from out the State, which we doubt not will be spiritedly competed for by our friends in Canada, to whom there is very convenient access to Watertown, by steamboat to Cape Vincent and thence by railroad.

COTTON-SEED CAKE FOR FEEDING.—A report of some experiments recently made with the intention of determining the fattening properties of cotton-seed cake in comparison with linseed cake, was presented to the Council of the Royal Ag. Society of England, on the 27th Feb. To test the quality of cotton-cake for feeding purposes, twelve Southdown sheep were selected and divided into two pens of six each, which were supplied daily with equal quantities of Swedes and chaff or cut straw. The one lot had six lbs. daily of linseed cake, and the other a like quantity of cotton-seed cake. The experiment was continued during four weeks, at the end of which time it was found that the six on linseed cake had gained in weight 63 lbs., while the six on cotton-seed cake had gained only 34 lbs. The four week's consumption of linseed cake amounted to about $5.50, and the four weeks of cotton-seed cake to about $3.30. The extra cost of the former was about exactly equivalent to market value of the additional mutton produced by it. At the end of other four weeks the results corresponded very exactly with those at the end of the first four weeks. From these it would seem that, when the prices of cotton-seed cake and linseed cake are about as they are now, or in the proportion of 4 to 7, the less priced is in reality no cheaper for feeding purposes than the higher priced article. The introduction of another kind of cake is, nevertheless, an addition to our stock of feeding materials of no little importance, inasmuch as it can be supplied in almost unlimited quantity, and inasmuch as the natural competition between the producers of it and of linseed cake, will render the cost of the latter more moderate to feeders of stock.

BEET SUGAR.—Can you or any of your contributors, give the most simple process, on a small scale, for the manufacture of sugar from beets. I am desirous of trying the experiment, but do not know where to get any information on the subject. What is the sort of beet most used for that purpose? JOHN GRIMES. *Boonton, N. J.* [The process of making sugar *successfully* from the beet, that is, in the *largest* practicable *quantity* and of the *best quality*, is complex and difficult, and would require much space to describe. As it cannot fail to prove decidedly unprofitable, it is perhaps not necessary for us to give the details. It may be sufficient for us to state, that with the most perfect machinery and with every facility for its success, sugar, at present prices, would require that beets be furnished as low as eight cents per bushel—and there would then be no *profit* in the manufacture. No one will labor without any profit to repay him. We should be very glad if some material could be procured for furnishing sugar at a fair rate at the north, but it must be something else than the beet, according to the evidence we have been able to collect upon the subject.]

"WILD PEACH."—Is there a tree known as the wild peach? Quite a number of peach trees have been sold in this neighborhood, by men who represent that they order them from New-Jersey, and that they are grafted on the wild peach root, which they allege is entirely exempt from attacks of the grub or borer, hitherto the great destroyer of the peach tree in this locality. Any information with regard to this matter will oblige A SUBSCRIBER. *Brooke Co., Va.* [There is no wild peach in this country. The peach came originally from the Himalayan mountains, and in all other places is an *introduced* tree. All the varieties ever grown in this country are liable to the attacks of the peach worm. We shall not say that the above mentioned representations are dishonest falsehoods to deceive purchasers, as possibly they have been misunderstood.]

☞ THE GENESEE FARMER has passed from the hands of Mr. VICK to Mr. JOSEPH HARRIS, by whom it will be hereafter published as well as edited. If the paper meets the success it deserves, Mr. H. will be abundantly rewarded for his labors.

## ALBANY SEED STORE.

ESTABLISHED IN 1831.

THE subscriber now offers at wholesale and retail his usual extensive assortment of genuine GARDEN and IELD SEEDS, growth of 1855, comprising in part the following desirable articles, viz:

King Philip or Improved Brown Corn—price 25 cts. per qt.
White Russian Flax—(a new and desirable acquisition,)—price 25 cts. per quart.
Long-Island Flax.
Garden and Field Peas of all sorts.
Garden and Field Beans of all sorts.
Indian Corn in great variety for the Garden and Field.
Millet Seed—$3 per bushel—Broom Corn.
Hemp—Rape or Cole Seed.
Lucerne or French Clover—White Dutch Clover.
Red Clover and Timothy—Red-Top or Herd's Grass.
Orchard Grass, and Mixed Grass Seeds for Lawns.
English Rye Grass, Spring Vetches or Tares.
English White Mustard, Sunflower.
Improved Ruta Baga Turnip.
Large White English Norfolk Turnip.
Yellow Aberdeen & White & Red top Strap-leaf Turnip.
Red Top and White Flat Turnip.
Large White Field and Long Orange Carrot.
Long Red and Yellow Globe Mangel Wurtzel.
White French and Yellow German Sugar Beet.
Honey Locust, Buckthorn and Osage Orange for Live Fences.
Yellow Locust for Locust posts.
Christina Muskmelon (true,)—50 cts. per ounce.
With a large assortment of choice Flower Seeds and spring planting Bulbs, &c., &c., &c.

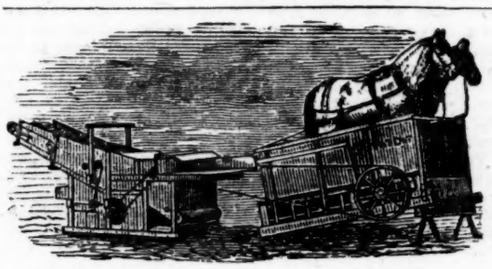
For full particulars reference is made to my Annual Catalogue of Garden, Field and Flower Seeds, just published for 1856, which will be mailed to any address on application.

WILLIAM THORBURN,
Seedsman and Florist,
March 13—w&m3m 492 Broadway, Albany, N. Y.

## *AGRICULTURAL IMPLEMENTS,*

WHOLESALE and retail—FIELD and GARDEN SEEDS, in small and large quantities—FRUIT and ORNAMENTAL TREES from the best nurseries in the country. Farmers and Merchants will find it to their advantage, to give us a call before purchasing, at the *North River Agricultural Warehouse.*

GRIFFING, BROTHER & CO.
Feb. 14—w&mtf 60 Cortlandt-St., New-York.



## Schenectady Agricultural Works.

IN consequence of the increased demand for their Improved RAILWAY HORSE POWERS, THRASHERS AND SEPARATORS, Combined THRASHERS and WINNOWERS, Circular SAWING MACHINES and CLOVER HULLERS,

The undersigned have purchased a large establishment in Schenectady, N. Y., and are now prepared by increased facilities to supply all orders from any part of the country promptly. G. WESTINGHOUSE & CO.
Schenectady, March 6, 1856—w&mtf

## Hay Presses! Hay Presses!

DEDERICK'S CELEBRATED PARALLEL LEVER HAY PRESSES, Patented May 16th and June 6th, 1854, which are now being Shipped to all parts of the country, and are in every case giving the most decided satisfaction—made to bale from 100 to 500 lbs and sold for from $1e- to $175. For Circulars with engravings and full explanat00 ry description, apply personally or by mail to

DEERING & DICKSON,
Premium Agricultural Works, Albany, N. Y.
Dec. 27—w&mtf

## *PORTABLE STEAM ENGINES,*

### For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

| | PRESENT LIST OF PRICES. | *Weight.* |
|---|---|---|
| 2½ horse power, | $225 | 1500 |
| 3 ..... do | $275 | 1800 |
| 4 ..... do | $340 | 2000 |
| 6 ..... do | $520 | 3500 |
| 8 ..... do | $680 | 4500 |
| 10 ..... do | $850 | 6000 |

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.
Jan 31—wtf A. N. WOOD & CO.

## The Black Hawk Horse Raven,

WILL stand at the stable of the subscriber the coming season. This horse took the first prize at the Fair of the State Agricultural Society of Connecticut last fall, in the class of stallions of all work, seven years old and over. All of his colts (several in number,) competing for premiums at the State Fair were successful, which was also true at the Fair of the Litchfield County Agricultural Society, and of the Housatonic Agricultural Society, which is sufficient evidence of the value of his stock.

ROBBINS BATTELL,
May 1—w1tm2t Norfolk, Ct.

## FOR SALE,

A VERY VALUABLE FARM.—The subscriber having determined to retire from business, offers his Farm for sale, containing about nine hundred acres of land, lying in Fairfax county, Virginia, about *ten* miles from Alexandria, Georgetown and Washington, which afford the best markets in the United States for the ordinary products of the farm.

The buildings are all comfortable; and the most of them have been erected within a few years. The *dwelling* is of *brick* with a frame addition containing *eleven* (11) *rooms*—the other buildings consist of *houses* for *laborers* with their families—a large *barn* and *stables—granary—carriage* and *wagon houses*—large *stone dairy—stone ice and meat houses*—a *large house* for *apples* and *cider* making, with *extensive cellars* for storing cider, and vinegar—and other necessary outhouses.

There are about 1000 *peach trees* of choice varieties; and 1500 or more *apple trees*, all in fine bearing condition; from which the subscriber realized last season between four and five thousand dollars, which amount might easily have been *increased to double by an efficient salesman.*

Large crops of *corn, wheat, oats, hay,* &c. are annually produced, for which the soil and climate are admirably adapted. The *meadows* are very *extensive;* and have yielded, without failure, heavy crops of hay for 40 years, without ever having been manured. The soil is easily improved; and is more retentive of improvement than any land within an equal distance of Washington.

It lies between two Railroads, one and a half miles distant from each. These roads, which will soon be completed, run through a lime-stone region 25 to 30 miles distant, and will be able to furnish it in any required quantity. The proprietor, 12 years ago, applied to a field 30 bushels of lime to the acre, with remarkable effect in increasing the crops, which effect still continues.

A large part of this land is in wood—much of it being heavy primitive *Oak-timber* suitable for ship building.

It is *abundantly* supplied with the *purest water.* In point of *healthfulness,* it *cannot be surpassed.* The subscriber's family, never numbering less than 25 persons, have not cost for medical services more than an average of $10 per annum, for the last *twenty years*

The wood-land is so distributed that the estate can be divided into several parts.

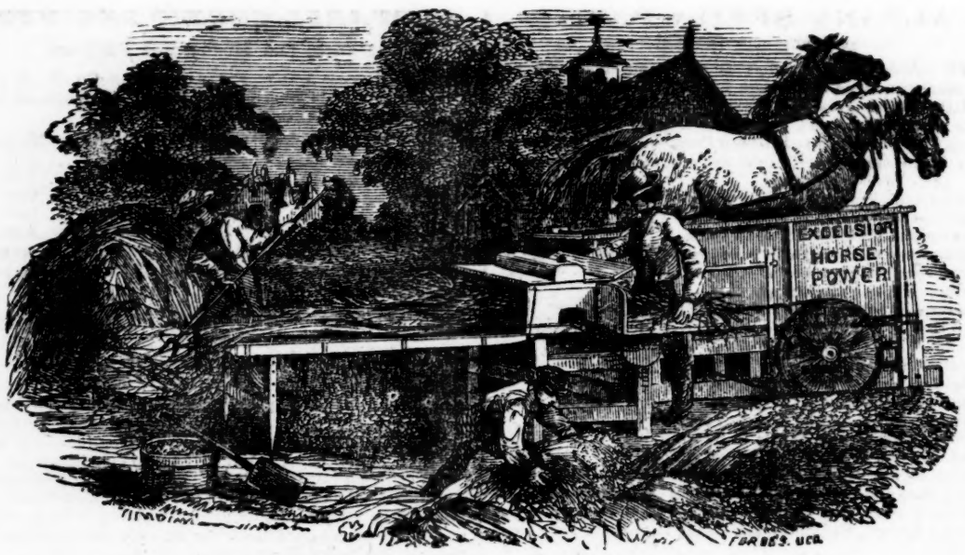
There are Methodist, Presbyterian, Episcopalian and Baptist churches in the neighborhood.

It is offered at thirty-five dollars per acre, which is not half its value—the orchards and meadows alone, being worth the amount demanded for the whole estate.

Its proximity to Washington, the permanent seat of the General *Government,* which is growing very rapidly in wealth and population, must, with its other advantages increase its value annually.

Persons wishing to purchase will make application to

WM. Y. DULIN,
near Falls Church,
March 1—mtf. Fairfax county, Virginia.




**THE EXCELSIOR RAILROAD HORSE POWER,**
**THRESHER AND SEPARATOR,**
**Circular Saw Mills, Cross-cut Saw Mils, Corn and Cob Grinders, &c., &c.**

HAVING sold about 500 sets of these Powers and Threshers the past season, many of which were purchased by some of the large wheat growers in this state, Vermont, Michigan, Illinois, Wisconsin and Canada, and without exception having given entire satisfaction, (which was guaranteed in all cases,) we do not hesitate to recommend them to Farmers and Mechanics desiring such machines as being in our opinion the most convenient, if not superior in all respects, to any others now in use. Very many flattering testimonials have been received, several of them estimating the cost of threshing at less than one-half that with the ordinary sweep powers with from four to six horses. Some of the principal advantages of these machines are these:

The Power itself occupies very little space, and is operated wholly, if desired, by the weight of the horse, the Power being placed at an angle of ten to fifteen degrees only, according to the weight of the horse, which is found sufficient for threshing all grains, sawing wood, &c. It is comparatively light and portable, and can readily be handled by two men, and used on any common threshing floor, thereby securing ease and safety to both man and beast during stormy weather. The moving parts are very simple, as sufficient speed for all purposes is obtained; thus avoiding a great amount of friction which is unavoidable in most other machines in use. The Thresher is rather new in many respects, and has several important advantages over most others. By having an overshot cylinder, it admits of a level feeding table, and the person feeding it also has the control of the horse, and by means of a brake, the power can instantly be checked or stopped by him with perfect safety, thereby often avoiding accidents. By this overshot motion, all hard substances are prevented from getting in, avoiding the danger of spikes being broken and thrown out—not an instance being known of such accident. By this machine the grain is not scattered, but thrown upon the floor within three feet of it, and admits a Separator to be attached sufficiently high from the floor for all the grain to fall through it, while the straw is carried quite over in good condition for binding,—the straw not being cut or grain broken. The cylinder is considerably less in diameter than most machines in use, and has only about one third as many spikes, but double the number in the concave, which admits of greater speed with the same power. It is also several inches longer, which gives ample room for feeding it to much better advantage. The Separator has been sold with each Thresher, and is considered indispensable, as it makes a perfect separation of the straw and grain, leaving the latter in the best possible condition for the fanning mill. Three men, with a single Power, can thresh 75 to 100 bushels of wheat or rye, or four men with a double Power 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day; and with fanning mill attached to the Power, and one man to attend it, the grain can be cleaned for market at the same time.

They can be taken apart and packed very compactly, and forwarded to any distance by canal, railroad or wagon. The single power, with thresher, separator, etc., weighs nearly 1500 lbs; the double power, with the other apparatus complete, weighs nearly 2000 lbs. All powers warranted.

☞ Descriptive Catalogues sent by mail, if desired, *gratis*.

☞ Persons desiring agencies for these machines, can have them on the most advantageous terms. Communications addressed to the subscriber will receive prompt and full replies.

RICH'D H. PEASE,
Albany, N. Y.

May 8—w2tm1t

**Union Agricult'l Warehouse & Seed Store,**

23 *Fulton-street*, (*near Fulton Market*,) *New-York*.

PLOWS—a large and choice selection of the best patterns now in use, comprising a variety of forty different patterns and sizes, adapted to the various soils.

HARROWS—Square, Triangular, and Hinged.

SEED DRILLS for sowing all kinds of Garden or Field Seed in drills, to be used by hand or horse.

ROLLERS—Field and Garden sizes.

GARDEN ENGINES, Wheel-Barrows, &c.

Together with an extensive assortment of HORTICULTURAL IMPLEMENTS.

FIELD and GARDEN SEEDS, for sale by

April 3—w5tm2t A. M. TREDWELL.

**FOR SALE.**

PURE BRED DEVON STOCK, and one three years old and one two years old BLACK HAWK COLTS, by

LINSLEY BROS.,
West Meriden, Conn.

May 1—w9t

**PERUVIAN GUANO.**

PERUVIAN GUANO, No. 1, with Government weight and brand upon each bag.

PERUVIAN GUANO, No. 1, taken from the lower part of the cargo, a little damp, with above brand upon each bag.

As the latter article is sold by some retail dealers for the best quality, be particular to observe that the *Damp* Guano has the figure **2** under the weight mark. For sale by

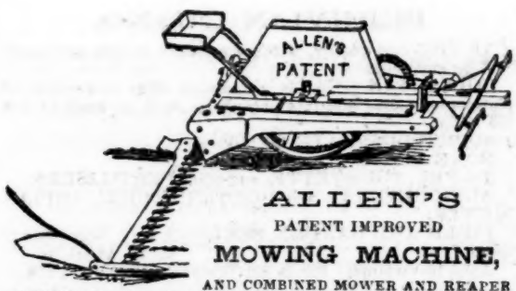
ANTOINE LONGETT,
34 Cliff street, corner of Fulton,
New-York.

Oct. 11—mtf

**VERBENAS AND PANSIES.**

THE subscriber has an extensive and very superior collection of Verbenas and Pansies, embracing the best imported varieties, together with many choice seedlings of his own raising, with most other bedding plants usually kept at Green-Houses. Prices as favorable as at any other establishment. Address JOHN DINGWALL, Florist,

April 10—w7t* Albany.




## ALLEN'S
PATENT IMPROVED
## MOWING MACHINE,
AND COMBINED MOWER AND REAPER

STRONG, Simple in construction, not liable to get out of order, Compact, Light, Easy of Draft, and may be worked with a slow gait by Horses or Oxen. No Clogging of Knives. Works well on any ground, however rough—side hills—salt and fresh meadows, &c.—and in any kind of lodged grass and clover.

WARRANTED TO GIVE ENTIRE SATISFACTION.

Manufactured at the Agricultural Implement Manufactory, and for sale at the Warehouse of R. L. ALLEN, 189 & 191 Water street, New-York. April 10—w6m2t

## DEVON CATTLE.

THE subscriber's second ANNUAL CATALOGUE of DEVON CATTLE, bred entirely from stock of his own importation, is now ready. It contains full pedigrees of all the animals in his herd; of which he offers a number of very superior bulls and heifers for sale.

Also ESSEX PIGS, bred from the best importations.

Address, C. S. WAINWRIGHT,
April 1—w&m6ms. Rhinebeck, Duchess Co., N. Y.

## Appleton's Drain Tile Works,

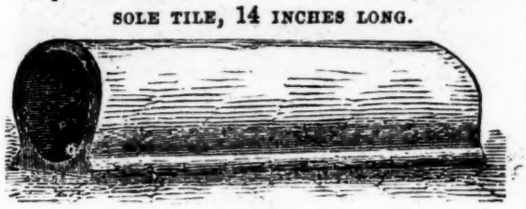
*Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.*

HORSE SHOE TILE 14 INCHES LONG.

PIECES.

4½ inches calibre, .... .....$18 per 1000
3½ inches calibre,..... 15 per 1000
2½ inches calibre,..... 12 per 1000

SOLE TILE, 14 INCHES LONG.



PIECES.

4 inches calibre, at.....$40 per 1000
3 inches calibre, at..... 18 per 1000
2 inches calibre, at ..... 12 per 1000

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also Large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchant's, 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that tile from his establisment obtained the first prizes at the Albany County, and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts, will be thankfully received and promptly attended to. Address JOHN APPLETON,
195 Washington-st., Albany, N. Y.
May 1—weow8t—m3m

## UNION AGRICULTURAL
## WAREHOUSE AND SEED STORE,

*No. 23 Fulton Street, (near Fulton Market,) New-York.*

THE undersigned having succeeded to the business for the Manufacture and Sale of Agricultural Implements and Machinery, heretofore conducted by Messrs. Ralph & Co., at No. 23 Fulton-st., intends to continue the same in all its branches, and is prepared to furnish goods of the best style and quality at low prices.

Machinery, or any articles in the line, manufactured to order, according to pattern, at short notice.

His facilities for manufacturing enable him to offer to Dealers and Farmers the following leading articles at low figures:

Hand and Power Corn Shellers,
Fan Mills,
Plows, Harrows, Cultivators,
Revolving Hay Rakes,
Spring Tooth Hay Rakes, (the best rake in use.)
Cast Iron Corn Mills for Hand or Power,
Road Scrapers, Wheel Barrows,
Field and Garden Rollers,
Corn and Cotton Planters,
Post or Ground Augurs,
Hay, Straw and Stalk Cutters,
Wagons and Carts,
Vegetable or Root Cutters,
Sausage Cutters and Stuffers.

In connection with extensive farming operations, I have for some years past given much attention to the raising of thorough-bred SHORTHORN, NORTH DEVON and AYRSHIRE CATTLE, and other fine stock, and now offer the advantage of my knowledge and experience to persons desiring to purchase. A. M. TREDWELL.
March 27—w5t&eow4t—m3t

## ATKINS' AUTOMATON:
OR,
## SELF-RAKING REAPER AND MOWER.

*BEST MACHINE IN USE.*

**1 (the first) used in 1852.**
**40 used successfully in 1853.**
**300 in twenty different States in 1854.**
**1200 in all parts of the Union in 1855.**
**3000 building for the harvest of 1856.**

THERE ARE SIX GOOD REASONS FOR THIS unparalleled increase and great popularity: 1st. It is strong and reliable, and easily managed. 2d. It saves the hard labor of raking. 3d. It saves at least another hand in binding. 4th. It saves shattering by the careful handling in raking; besides the straw being laid straight, it is well secured in the sheaf, and does not drop in the after handling, and the heads are not exposed in the stack, so that the GRAIN saving even exceeds the LABOR saving. 5th. It is a good Mower, being one of the best convertible machines in use. 6th. It has a knife that does not choke.

Its other excellencies, too numerous to mention here, are fairly given in the circulars. Its intrinsic worth is also attested by the award (mostly in only 3 years) of

### OVER 70 FIRST PREMIUMS!

PRICE.—REAPER AND MOWER, $200.—$75 on its receipt, $75 first September, and $50 first December. Price of SELF-RAKING REAPER only $175. Considerable saving in freight to those at a distance who order prior to 1st March; also liberal discounts for advance payment.

To procure a machine, order immediately. Though so little known the past season, and none ready for delivery till 1st of May, yet not two-thirds of the customers could be supplied. The reputation of the Machine is now widely established, so that THREE THOUSAND will not as nearly supply the demand as twelve hundred did last year, and we shall also be selling four months earlier.

☞ Order early, if you would not be disappointed.

PAMPHEETS giving IMPARTIALLY the OPINIONS OF FARMERS, together with orders, notes, &c., mailed to applicants, and prepaid.

☞ Write to us at CHICAGO, (Ill.,) DAYTON, (Ohio,) or BALTIMORE, (Md.,) which ever is nearest you.

J. S. WRIGHT & CO.
"Prairie Farmer" Works, Chicago, March 6—w4tm4t

## North Devon and Ayrshire Cows,

THOROUGH-BRED, for sale by
ALFRED M. TREDWELL,
Union Agricultural Warehouse and Seed Store, No. 23 Fulton Street, New-York City, or Madison, Monroe County, New-Jersey. April 17—w4tm2t

## AGRICULTURAL SEEDS.

THE subscribers offer of the growth of the past year, and of the finest qualities, their large stock of

| | | | |
|---|---|---|---|
| Early Yellow Stone TURNIP, at | 75 | cents | per lb. |
| Yellow Aberdeen | do | 75 | do |
| Skirving's improved Ruta Baga | do., | 50 | cents per lb. |
| Early White Stone | do | 75 | do |
| Large White Norfolk | do | 50 | do |
| Large White Globe | do | 50 | do |

with twenty other varieties of TURNIPS, for which see priced catalogue.

ALSO,

| | | | |
|---|---|---|---|
| Long Orange CARROT, clean seed, | $1.00 | per | lb. |
| White Field | do | 75 | do |
| Early Short Horn | do | 1.00 | do |
| Long Red Mangel Wurtzel BEET, | | 50 | do |
| White Silesia Sugar | do | 50 | do |
| Round Leaved SPINACH, | | 75 | do |
| New Flanders | do | 1.00 | do |
| Prickly or Winter | do | 75 | do |

AND AT REDUCED RATES IN QUANTITIES, and a full assortment of VEGETABLE, FLOWER and FIELD Seeds, warranted FRESH, PURE and TRUE.

LUCERNE and WHITE DUTCH CLOVER, SAINFOIN, ENGLISH AND ITALIAN RAY GRASSES. SWEET SCENTED VERNAL GRASS. THE FESCUES and other varieties of Foreign Grasses, and the most approved mixtures of English, French and domestic Grasses for LAWN PURPOSES.

NORWAY SPRUCE, and other EVERGREEN Seeds—OSAGE ORANGE and HONEY LOCUST for Hedges—YELLOW TIMBER LOCUST—IMPROVED KING PHILIP CORN—JAPAN PEAS, &c., &c.

Catalogues mailed to applicants enclosing a three cent stamp, and orders by mail promptly responded to.

J. M. THORBURN & CO., 15 John-st., New-York.

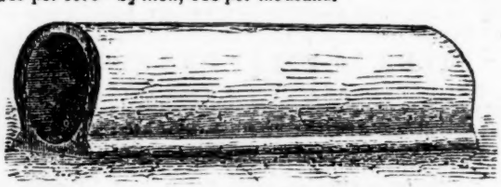
DIOSCOREA BATATAS—NEW CHINESE POTATO OR YAM, at $3 per dozen. Description and direction for culture urnished to applicants. May 1—w5tm1t

## Artcher & Co.'s Tile Works,

*Near the Orphan Asylum, on the Western Plank Road—Office 63 Quay-street, near the Steam-boat Landing.*

THE subscribers are prepared to furnish Drain Tile of all sizes and patterns at reduced prices, and warranted as good as any made in America—their length being 15 inches —(1000 will lay 76 rods of drain.) On a large order a liberal discount will be made.

Horse Shoe Tile—4½ inch calibre. $18 per 1000—3½ inch, $15 per 1000—2½ inch, $12 per thousand.



Sole Tile—4 inch calibre, $40 per 1000—3, $18 per 1000—2, $12 per 1000.

Also on hand Horse-Shoe Tile, suitable for small streams and out-houses, at $8 per 100. Also large Tile, suitable for cellars, cisterns, sinks, &c., at $4 and $6 per hundred. Tile delivered at the docks and railroads free of cartage. Orders thankfully received and promptly attended to. Address

ARTCHER & CO.,
63 Quay-st., Albany, N. Y.

DISSOLUTION.—The copartnership heretofore existing under the firm of Appleton & Alderson, is this day dissolved by mutual consent. Feb. 1st, 1856.

As usual, orders for Tile will be thankfully received by

GEO. ALDERSON, Agent,
May 1—weow&mtf Albany.

## PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan. 1—w&m1y*

## PERUVIAN GUANO,

OF THE best quality, with government weight and brand on each bag.

COLUMBIAN GUANO, containing large proportions of phosphate of lime and free phosphoric acid, in bags of 160 lbs. each.

SUPERPHOSPHATE OF LIME.

BONE DUST.

TA-FEU, POUDRETTE, and other FERTILISERS.

AGRICULTURAL and HORTICULTURAL IMPLEMENTS.

FIELD AND GARDEN SEEDS—A very large assortment.

R. L. ALLEN,
April 10—w6tm2t 189 & 191 Water-street, New-York.

## NO. 1 PERUVIAN GUANO,

AT THE lowest market price.

Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co.,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,

Can now be obtained in large or small quantities at the

**North River Agricultural Warehouse,**

GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

## Imported Horse "Consternation."

THIS famous thorough-bred horse, will stand the present season as heretofore at the farm of J. B Burnet. Esq., 1½ miles west of Syracuse, at $10 the season—$20 to insure. The money to be paid in advance in all cases. Where insurance is effected, a receipt will be given, promising to refund the money in case the mare is proved not to have got in foal, and provided always that she is regularly returned to, or left with the horse until the groom is satisfied she is stinted. Pasturage at 50 cents per week, at risk of owners.

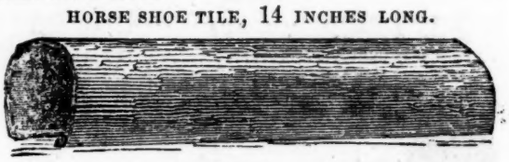
WILLIAM KEENAN, Groom.
Syracuse, May 1, 1856—w9tm3t

## ALBANY TILE WORKS,

*Corner of Patroon and Knox Streets, Albany, N. Y.*

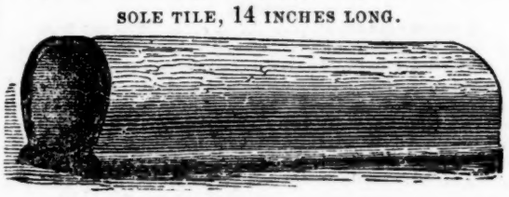
THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities, for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE SHOE TILE, 14 INCHES LONG.



| PIECES. | | | |
|---|---|---|---|
| 2½ | inches calibre, | $12 | per 1000 |
| 3½ | " " | 15 | " |
| 4½ | " " | 18 | " |
| 5½ | " " | 40 | " |
| 8 | " " | 80 | " |

SOLE TILE, 14 INCHES LONG.



| PIECES. | | | |
|---|---|---|---|
| 2 | inches calibre, | $12 | per 1000. |
| 3 | " " | 18 | " |
| 4 | " " | 40 | " |

Also on hand 6 inch calibre Octagon pipe, $20 per 100, and 8 inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Late BABCOCK & VAN VECHTEN,
May 8—w&m3ms. Albany, N. Y.

RICH'D H. PEASE, Agent,
Excelsior Agricultural Works, Warehouse and Seed Store,
359 & 371 Broadway, Albany, N. Y.

## Farm Lands for Sale.

### THE ILLINOIS CENTRAL RAILROAD COMPANY

IS NOW PREPARED TO SELL OVER

### Two Million of Acres of Farming Lands,

*In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.*

THESE lands were granted by the Government, to aid in the construction of this Railroad, and include some of the richest and most fertile Prairies in the State, interspersed here and there with magnificent groves of oak and other timber. The Road extends from Chicago, on the North-East, to Cairo at the South and from thence to Galena and Dunleith, in the North-west extreme of the State, and as all the lands lie within fifteen miles on each side of this Road, ready and cheap means are afforded by it for transporting the products of the lands to any of those points and from thence to Eastern and Southern markets. Moreover, the rapid growth of flourishing towns and villages along the line, and the great increase in population by immigration, etc., afford a substantial and growing home-demand for farm produce.

The soil is a dark, rich mould, from one to five feet in depth, is gently rolling and peculiarly fitted for grazing cattle and sheep, or the cultivation of wheat, Indian corn, etc

Economy in cultivating and great productiveness are the well known characteristics of Illinois lands. Trees are not required to be cut down, stumps grubbed or stone picked off, as is generally the case in cultivating new land in the older States. The first crop of Indian corn, planted on the newly broken sod, usually repays the cost of plowing and fencing.

Wheat sown on the newly-turned sod is sure to yield very *large profits*. A man with a plow and two yoke of oxen will break one and a half to two acres per day. Contracts can be made for breaking, ready for corn or wheat, at from $2 to 2 50 per acre. By judicious management, the land may be plowed and fenced the first, and under a *high state of cultivation* the second year.

Corn, grain, cattle, etc., will be forwarded at reasonable rates to Chicago, for the Eastern market, and to Cairo for the Southern. The larger yield on the cheap lands of Illinois over the high-priced lands in the Eastern and Middle States, is known to be much more than sufficient to pay the difference of transportation to the Eastern market.

Bituminous coal is mined at several points along the Road, and is a cheap and desirable fuel. It can be delivered at several points along the Road at $1 50 to $4.00 per ton; Wood can be had at the same rates per cord.

Those who think of settling in Iowa or Minnesota, should bear in mind, that lands there, of any value, along the water courses and for many miles inland, have been disposed of;—that for those located in the interior, there are no conveniences for transporting the produce to market. Railroads not having been introduced there. That to send the produce of these lands, one or two hundred miles by wagon to market, would cost much more than the expense of cultivating them; and hence, Government lands thus situated, at $1.25 per acre, are not so good investments as the land of this company at the prices fixed.

The same remarks hold good in relation to the lands in Kansas and Nebraska, for although vacant lands may be found nearer the water courses, the distance to market is far greater, and every hundred miles the produce of those lands are carried either in wagons, or interrupted water communications, increases the expenses of tranportation, which must be borne by the settlers, in the reduced price of their products; and to that extent precisely are the incomes from their farms, and of course on their investments, annually and every year reduced.

The great fertility of the lands now offered for sale by this company, and their consequent yield over those of the Eastern and Middle States, is much more than sufficient to pay the difference in cost of transportation, especially in view of the facilities furnished by this Road, and others with which it connects, the operations of which are not interrupted by the low water of summer, or the frost of winter.

### PRICE AND TERMS OF PAYMENT.

The price will vary from $5 to $25, according to location, quality, etc. Contracts for Deeds may be made during the year 1856, stipulating the purchase money to be paid in five annual installments. The first to become due in two years from the date of contract, and the others annually thereafter. The last payment will become due at the end of the sixth year from the date of the contract.

**Interest will be charged at only 3 per cent. per an.**

As a security to the performance of the contract, the first two years' interest must be paid in advance, and it must be understood that at least one tenth of the land purchased shall yearly be brought under cultivation.

Twenty per cent. from the credit price will be deducted for cash. The company's construction bonds will be received as cash.

They will be 12 feet by 20 feet, divided into one living and three bed-rooms, and will cost complete set up on ground chosen anywhere along the Road, $150 in cash, exclusive of transportation. Larger buildings may be contracted for at proportionate rates. The Company will forward all the materials for such buildings over their road promptly.

Special arrangements with dealers can be made to supply those purchasing the Company's lands with fencing materials, agricultural tools, and an outfit of provisions in any quantity, at the *lowest wholesale prices*.

*Ready Framed Farm Buildings, which can be set up in a few days, can be obtained from responsible persons.*

It is believed that the price, long credit, and low rate of interest, charged for these lands, will enable a man with a few hundred dollars in cash and ordinary industry, to make himself independent before all the purchase money becomes due. In the mean time, the rapid settlement of the country will probably have increased their value four or five fold. When required an experienced person will accompany applicants, to give information and aid in selecting lands.

Circulars, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc., by contract—or any other information—will be cheerfully given, on application, either personally or by letter, in English, French, or German, addressed to JOHN WILSON,

*Land Commissioner of the Illinois Central R. R. Co.*

Office in the New *Stone Passenger Depot*, foot of South Water Street, Chicago, Ill. May 1—m0t

## UNITED STATES AGRICULTURAL Warehouse and Seed Store.

MAYHER & CO., Nos 195 and 197 Water Street, New-York, where may be found the largest and most complete assortment of

### Agricultural and Horticultural Implements, FIELD AND GARDEN SEEDS,

ever offered for sale in the United States.

Among our collection may be found the following, viz:—

Plows of every size and kind ever made, comprising some 150 different patterns; also, the genuine Eagle **D** and **F** Plows, which have taken the premium wherever tried and tested.

Harrows, Geddes, Triangular, Scotch and Square of all sizes.

Cultivators, with Cast, Wrought Iron and Steel Teeth, of different kinds.

Straw Cutters of various patterns, for cutting Hay, Straw, and Corn Stalks

Fan Mills, of twenty different styles and sizes, for cleaning all sorts of Grain; also, Coffee Hand Mills, for cleaning and sorting Coffee; a prime article for the West India market.

Horse Powers and Threshers, for one, two, four and eight horses; we have the Railway Power and Sweep Power, of different kinds, with Threshers, Separators, and Cleaners attached.

Mowing Machines; Ketchum's celebrated Mower, that will mow and spread in a perfect manner, twelve acres of grass per day. Reaping Machines; McCormick's, Hussey's and other makers

Churns; fifty different styles, among which is the "THEROMETIC CHURN," which is considered to be the best in use

We have also Hall's celebrated eight horse power, and combined Thresher, Separator, and Cleaner, well suited to the California market. And in a word every article necessary for the Farm, Plantation, or Garden, may be found at the UNITED STATES AGRICULTURAL WAREHOUSE AND SEED STORE, No. 197 WATER STREET, NEW-YORK.

N. B. An illustrated catalogue will be furnished by addressing the subscribers as above. March 1—mif

## Rural Architecture, &c.

RURAL HOMES, or Sketches of Houses Suited to American country life, by Gervase Wheeler—price $1.25.

HOMES FOR ALL, or the Gravel Wall and Octagon mode of Building, by O. S. Fowler—price 75 cents.

LANDSCAPE GARDENING, or Parks and Pleasure Grounds, by C. H. J. Smith, with Notes and Additions, by Lewis F. Allen—price $1 25.

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## FOR SALE CHEAP,

TO CLOSE a consignment, a large lot of

**AGRICULTURAL IMPLEMENTS,**

Consisting of Plows, Straw Cutters, Corn Shellers, Fan Mills, Seed Sowers, Garden Rollers, Churns, Horticultural Tools, &c., &c., at cost prices.

JOHN ALEXANDER,
May 15—w4tm2t 34 Cliff-st., (up stairs,) New-York.

## Green Mountain Morgan Stallion.

FOR SALE —The subscriber offers for sale his beautiful Green Mountain Stallion, from the celebrated old Green Mountain Morgan of Royalston, Mass. He is 6 years old,—weighs 1000 lbs—of a beautiful dark chestnut color—a fine figure, prompt action, and a superior roadster, combining in a marked degree all the characteristics of the celebrated Morgan stock. His colts stand *deservedly high*, and are among the best in this part of the country. To those wishing to improve their stock of horses by a mixture of a strain of the old Morgan blood, this opportunity offers a rare chance

JAS. P. UPHAM,
May 1—m3t Claremont, N. H.

## THE DOLLAR NEWSPAPER,

PHILADELPHIA.

*Only One Dollar per Year to Single Subscribers.*

### ANOTHER ORIGINAL NOVELETTE.

IN ORDER to accommodate all who wish to begin with the beginning of our next original Novelette,

THE BORDER ROVER,

BY EMERSON BENNETT, ESQ.,

We have decided to defer it a few weeks, until those wishing to perfect their Clubs shall have time to do so. Say until about the 1st of July, when our half year commences.

### THE DOLLAR NEWSPAPER

Is made up with special reference to the family circle. It aims to interest, instruct and amuse. News and substantial information are its prominent characteristics. With monster machines, capable of printing each 20,000 copies per hour, its columns can be held open for news, each week, to within a few hours of the date of publication. It is thus enabled to publish the latest and most reliable market reports, and to give a greater amount of general business information, for the low subscription price of ONE DOLLAR PER YEAR, than any other family paper gives for two dollars.

### THE FARM, AND THE FARMER.

The Agricultural Department of the "Newspaper" is spiritedly maintained by contribution, from practical farmers, and by thousands of readers this department is considered one of the most important features of the paper. Theoretical and practical agriculture, thus blended and compressed weekly into a short space, cannot fail to interest and profit readers.

The following are the Terms per year:

ONLY ONE DOLLAR PER YEAR TO SINGLE SUBSCRIBERS.
CLUBS OF SIX FOR $5.
CLUBS OF THIRTEEN, $10.
CLUBS OF TWENTY, $15.
CLUBS OF TWENTY-SEVEN, $20.
CLUBS OF THIRTY-FOUR, $25.
CLUBS OF FIFTY, $35
CLUBS OF SEVENTY-FIVE, $50.

Our friends, for their own profit, as well as our convenience, will oblige by handing in as early as possible their Club lists.

For the small sum of One Dollar, or less, fifty-two numbers of the paper are given, containing in the aggregate fourteen hundred and fifty-six compact and closely-printed columns, equal to six thousand six hundred book pages, or about twenty-two volumes of the common library size of three hundred pages each. Only think of it! Twenty-two volumes of reading, fresh, and most of it original, for less than one dollar?

No subscriptions acknowledged unless accompanied with the money. Address WM M. SWAIN & CO.
May 8—w1tm1t Philadelphia, Pa.

## *RURAL PUBLICATIONS.*

THE COUNTRY GENTLEMAN—THE CULTIVATOR, AND THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS—*Published at Albany, N. Y., by* LUTHER TUCKER & SON.

THE COUNTRY GENTLEMAN is a beautfully illustrated weekly of 16 pages quarto, with special Departments for *The Farm, The Grazier, The Dairy, The Fruit Garden and Orchard, The Florist, The Kitchen Garden, The Poultry Yard, The Housewife, The Fireside, &c.* "This is, without question, the BEST Agricultural Paper in the United States."—Hon. JOHN WENTWORTH, M. C. of Illinois. Price $2 a year.

THE CULTIVATOR, monthly, 32 pages octavo—well-known for twenty years, as the best monthly agricultural journal in this country—price 50 cents per year.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS. The two Nos. issued for 1855 and 1856, contain more than 250 engravings of buildings, animals, trees, fruits, &c., &c. Price 25 cents each—*sent post paid by mail.*

These works combine attractions to be found in no similar publications, and the publishers will send specimens of the papers to all who would like to examine them.

☞ Our exchanges will confer a favor by giving the above one or two insertions.